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FALLOUT 76

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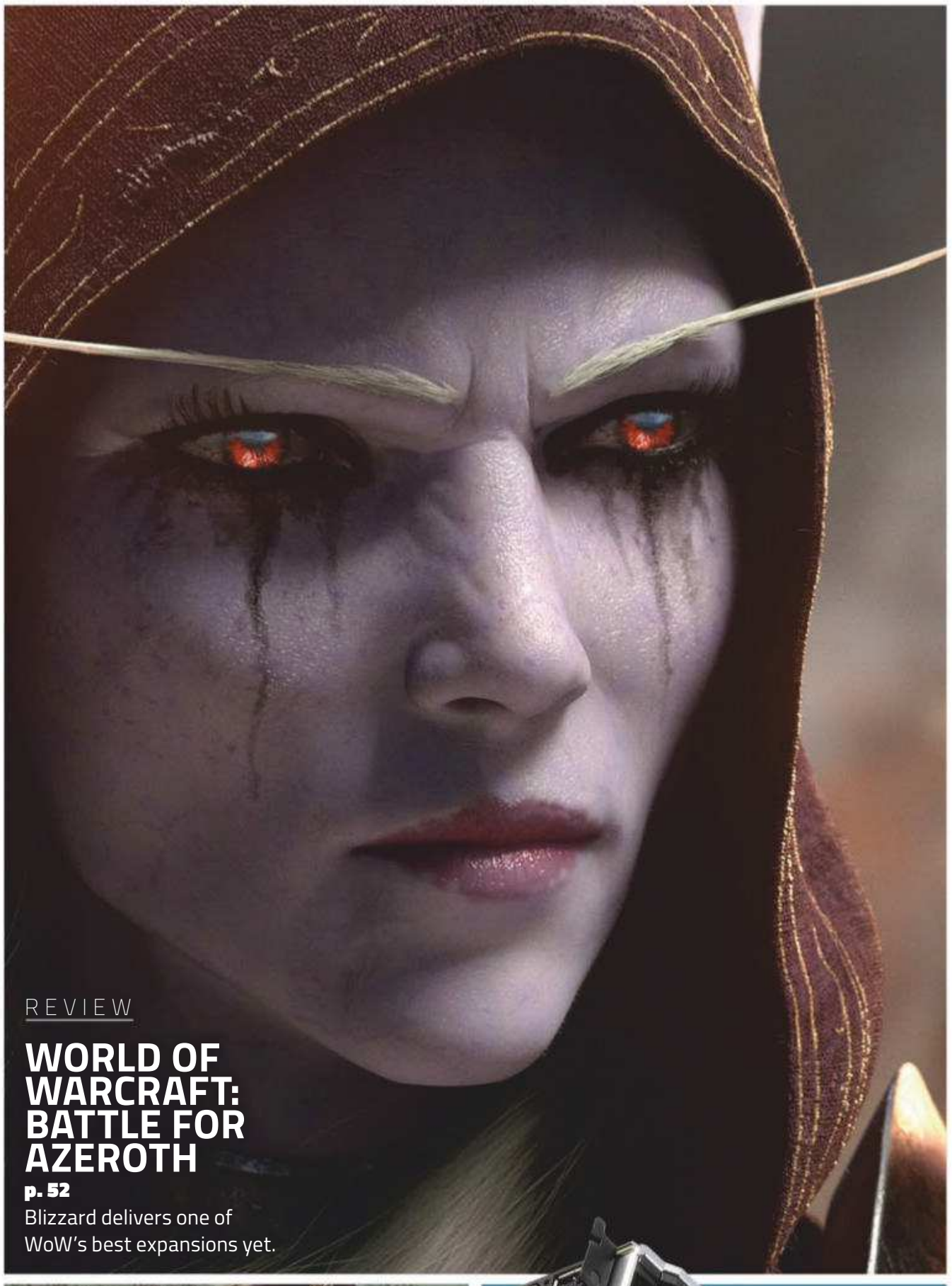
Build a new world - above the ground, with your mates... just watch out for those nukes...



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Blizzard delivers one of WoW's best expansions yet.

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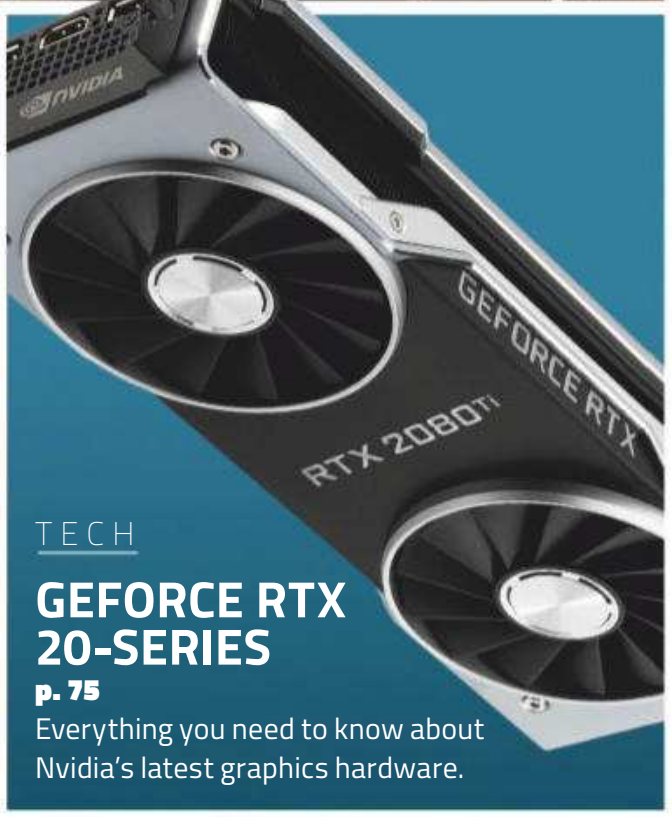
In Soviet Russia, tank rush you!



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Everything you need to know about Nvidia's latest graphics hardware.

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WELL LOOK AT THAT

So if you have a look over to the right of this page, you're going to see things have changed a little around these parts. In some ways they're kinda big, and in other ways, not nearly as big as you might think...

Long story short, PC PowerPlay has a new home. Australia's oldest - and if I may say so best - PC gaming mag has said farewell to Nextmedia, and now joins the very strong stable of gaming titles published by Future Publishing Australia. What does that mean for us?

Well, we're in North Sydney now, so it means fancier food! But what does that mean for you, our readers?

It means access to a global team of writers and reviewers. It means, alongside this year's shift to a bi-monthly publishing cycle, that looking ahead (and we're starting this issue) a greater focus on game previews, so you can learn about the best upcoming games in depth, right here. It means our online presence has folded into the very fine PC Gamer team, and that's nothing to scoff at!

It also means new email addresses, so you can drop me a line at david.hollingworth@futurenet.com if you want to know more, or you can still find me on Twitter, with my handle below. Now, kick back, and see what the gaming future holds...

David Hollingworth
Editor
@CptHollingworth

"You can tell by the why I use my walk, I'm a lady's vault-dweller, no time to talk."

PC PowerPlay
AUSTRALIA'S #1 PC GAMING MAG
SINCE 1996

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All copyrights and trademarks are recognised and respected

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Printed by Blue Star PRINT (NSW)

Distributed in Australia and NZ by Gordon and Gotch
www.gordongotch.com.au

ISSN 0728-441

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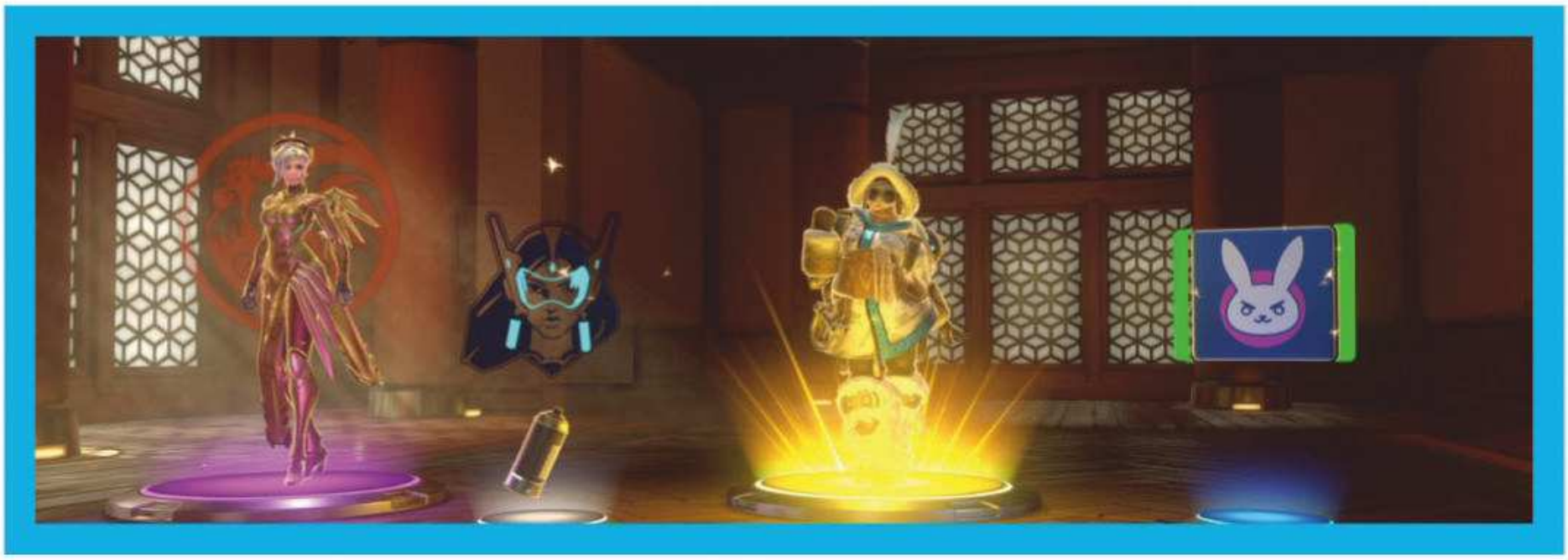

LOOT BOXES ARE "PSYCHOLOGICALLY AKIN TO GAMBLING", ACCORDING TO AUSTRALIAN STUDY

Games with loot boxes should only be available to players of legal gambling age

Loot boxes in games could lead to problem gambling, according to a study by the Australian Environment and Communications Reference Committee. Over 7,400 game enthusiasts were surveyed for the study, the results of which were presented during a public hearing in Canberra yesterday, as part of the Australian senate inquiry into micro-transactions and chance-based items.

Participants who suffered a serious gambling problem were more likely to spend money on loot boxes, the study found. "These results support the position of academics who claim that loot boxes are psychologically akin to gambling," reads the submission.

"Spending large amounts of money on loot boxes was associated with problematic levels of spending on other forms of gambling. This is what one would expect if loot boxes psychologically constituted a form of gambling. It is not what one would expect if loot boxes were, instead, psychologically comparable to baseball cards."

The report suggests that loot boxes could act as a gateway to problem gambling, noting that loot boxes share "important characteristics" with problem gambling. "They may therefore condition gamers to require the excitement associated with gambling , leading to problem gambling." The opposite could be true, too, so says the study: problem gamblers might find themselves attracted to loot boxes.

Among the ECRC's recommendations is that games with loot boxes be restricted to players of legal gambling age (18-years in Australia). Games would also be required to carry warnings about the presence of loot boxes, as well as parental advisories.

BOYFRIEND DUNGEON SMASHES KICKSTARTER GOAL, COMING IN 2019

Woo your weaponry!

Boyfriend Dungeon, in development by Kitfox Games, has finished its Kickstarter campaign 415 percent over its target. As reported recently, it hit its goal in just one day — and will now go into full development.

If, like me, you were a little confused by the game's title, you might be even more so when you read what it involves. It's an action-RPG dungeon crawler where your weapons can "transform into beautiful people," allowing you to take them out on dates to level them up. Obviously.

There are nine weapons to choose from, and each weapon has its own combat style, as well as distinct likes and dislikes. It's probably wise to familiarise yourself with each of these as they'll be useful whether on a date or on the battlefield.

If you're intrigued, you can keep up with updates by visiting the official site www.boyfrienddungeon.com. Boyfriend Dungeon is due for release in 2019.

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BATTLEFIELD 5 DEVS ASSURE FANS THAT THEY'RE STILL MAKING MASSIVE MAPS

Team reveal Hamada map, which is 1.5km end-to-end.

Some of the players in Battlefield 5's open beta, which ended this week, were worried that the maps were too small, and didn't live up to the mammoth arenas in previous games (this is a good example of the complaints). The DICE concerns, assuring fans they're still making big maps—including one that's more than 1.5km end-to-end.

The big map in question is Hamada, and lead multiplayer designer Valerian Noghin shared an image to show its scale, noting that it's still a work in progress.

The development team also shared a list of changes they're planning to make based on feedback from the open beta. Distance haze and lighting changes will make enemies more visible, and automatic weapons are being "adjusted" to make "time to kill as fair and fun as possible".

Battlefield 5 is due out on November 20.

LAWBREAKERS IS GONE FOR GOOD, UNRELEASED MAP ART REVEALED

Cliff Bleszinski's fast-paced arena shooter has met its final fate.

LawBreakers, the high-flying arena FPS created by Cliff Bleszinski's Boss Key Productions, is gone for good. The shutdown date had been set back in June, ending a brief flash of hope that it might have a future as a free-to-play game, and former senior environment artist Josh Rife (who is now filling the same role at Red Storm Entertainment) confirmed just ahead of the weekend that the curtain had fallen on schedule.

Rife also shared concept art for an unreleased map called Valhalla, "the craziest shit we ever put together," he tweeted. "We basically said screw arbitrary limits to egregious vertical combat, and made the capture zones super vulnerable. Expert player map for sure."

"Valhalla was Bosskey's 10th and final map for LawBreakers. Set in an abandoned Valkyrie training facility in California's Sequoia Natl. Forest, Valhalla stands as a monument to dedication and perseverance," the Artstation description says.

"This massive arena hosts all ranges of combat encounter types, including our longest sightlines, and most lethal Capture-The-Battery layout ever. The map was created for a themed, seasonal content drop, internally code-named 'Bloody Christmas', but was unfortunately never released to the public."

LawBreakers has also been removed from Steam—the store page link now leads to the front page.

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FRACTAL DESIGN'S DEFINE R6 CASES GET THE USB-C TREATMENT

More connectivity, with a side serving of glass.

Fractal Design introduced today its revised Define R6 cases with integrated USB Type-C ports. The popular case manufacturer also announced a few useful accessories for existing Define R6 owners to expand the case's capabilities. The current generation of motherboards, whether AMD or Intel, have pretty much embraced the USB 3.1 Gen 2 Type-C (commonly referred to as USB-C) standard. The majority of mid-end to high-end motherboards come equipped with an internal header for front-panel USB-C ports. Unfortunately, the standard hasn't quite caught on with cases. There's only a handful of cases on the current market that have incorporated USB-C ports.

Fractal Design previously offered an optional USB Type-C panel for Define R6 owners who desired USB-C functionality on their cases. However, the upgrade kit represented an extra cost for the owner as it carried a $US20 price tag, not to mention that users still had to go through the hassle of taking their cases apart to swap panels. Fractal Design's latest Define R6 USB-C cases are the solution to that problem.

The Define R6 USB-C features the same set of features as the original Define R6. The new case is available now in eight different styles. The black, white, blackout and gunmetal models cost $US139.99 ,while the tempered glass black, white, blackout and gunmetal models go for $US159.99.

In other news, Fractal Design also added a few goodies for Define R6 owners. The tempered glass side panel is now available separately for $US29.99. The panel is scratch-resistant and has a bolt-free design to latch itself on the left or right side of the Define R6 case. It's available in black, white and gunmetal. Additionally, the case maker has started selling HDD drive trays and SSD brackets, which come in pairs in a single kit. The kits are available in black and white and cost $US9.99 each.

AMD'S VEGA GRAPHICS COMING TO GAMING LAPTOPS

Mobile gaming to get a power boost.

AMD listed the Ryzen 7 2800H and the Ryzen 5 2600H on its website. These new processors bring the inherent goodness of the Raven Ridge architecture, found in the Ryzen 5 2400G and the Ryzen 3 2200G, to gaming notebooks. As such, these processors come with AMD's Zen compute cores paired with the Vega graphics architecture, and they are also AMD's first processors to support DDR4-3200 as a base specification.

Both new models feature a similar design as their desktop counterparts, albeit with slightly redesigned in frequencies to adjust for the flimsy cooling in mobile form factors and battery life limitations. That's reflected in the processors' reduced 45W TDP (thermal design power), which is much lower than the 65W TDP found on the desktop parts. AMD does give vendors some wiggle room with a configurable TDP (cTDP) range that spans between 35W and 45W.

The move to support for DDR4-3200 is an encouraging sign, as we've shown how readily the Raven Ridge parts respond to improved memory performance. Pair that with Vega's higher clock speeds and these should be pretty powerful chips for the gaming laptop segment.

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TRUE GAMING

What's in the Box?

What kind of scumbag would defend the loot box economy? Buckle up, 'cause we're about to find out...

100 years ago, you could walk in to any pharmacy and buy heroin. 40 years ago, you could walk into any K-Mart and buy a gun. Today, you can buy loot boxes.

Loot boxes are legal – perfectly legal. And to anyone without the self-control of a saint they are extremely dangerous. Loot boxes are not considered gambling, but they tap into the same part of the brain, and induce the same self-destructive behaviour. Loot boxes are a menace, and the legislatures of the world are waking up to this. Belgium has banned them, and more jurisdictions are sure to follow. The game companies that have grown dependent on loot boxes have a choice: to return to a business model that can profit without them, or to lobby our corrupt politicians to normalise this base exploitation of human weakness.

I expect gaming executives to take the latter option, and channel their inner Sheev Palpatine: "I will make it legal!" For our politicians, the possibility of a new source of tax revenue will be impossible to resist. Thus, the only real question is: how will the general public respond? You might think that they'd be universally opposed, but I'm not so sure.

Recall the release of the recent Spider-Man game. By all accounts, it was pretty good. Yet the visuals in the finished product differed starkly from the teaser trailers. When compared side by side, the actual game looked like quite the downgrade from the vision PS4 owners were sold. It seemed like a clear-cut example of deceptive marketing. Hence I was a tad surprised when a prominent games journalist started attacking anyone who criticised the downgrade, via the use of a classic rhetorical technique: the 'Straw Man'.

Rather than address the actual criticism, he seized on a tiny part of it, made it sound absurd, pretended that this alone was the source of the controversy, and portrayed all critics of Insomniac's Spider-Man as wilful fools. Specifically, amongst the many graphical downgrades in a sequence where Spider-Man beats up some baddies, a puddle on the floor was slightly smaller. "You're mad that a puddle is missing? Pathetic!"

As far as I know, this fellow is not on Sony's payroll. But I find it fascinating that he responded this way. His first instinct was not to protect his readers, but rather to protect his advertisers (and potential advertisers). This compulsion to grovel is not confined to the vassals of wealth and power; it is shared by wannabe toadies as well. Add this to the social media output of the paid troll armies that serve corporations and governments, and you are guaranteed that any online discourse will swiftly degenerate into disingenuous shitposting.

> "You'd really like to see them cast out into the streets, wouldn't you?!"

So, as our governing class moves to tax and normalise loot boxes, what kind of rhetorical tactics will the janissaries of capital employ? Here are five to look out for:

"Gamers are entitled!" Video game enthusiasts expect a quality product when they pay for one, not endless skinner box exploitation. But by classifying the very diverse participants in our hobby simply as 'Gamers', an imagined homogeneous mass of troglodytes, it becomes easy to dismiss their concerns.

"Stop attacking innocent programmers!" "The hard-working devs who make our games have families to support! Without the loot box economy, they might lose their jobs! You'd really like to see them cast out into the streets, wouldn't you?! You monster!"

"They just make me happy!" I see this one a lot. "That new trailer for the latest cookie-cutter Marvel movie got me right in the feels!" Not much of an argument; just a base appeal to raw emotion. Expect to see more Twitch streams of your favourite influencers giddily opening Hearthstone card packs for hours on end.

"We need to start a conversation about loot boxes..." Classic doubletalk. "We need to start a conversation" always means: "You need to take everything I say at face value."

"You just don't understand game development!" My personal favourite. This is mostly used by Star Citizen backers, but it could easily apply to loot boxes as well. Shills will likely claim that without the colossal revenue brought in by loot boxes, modern gaming development just wouldn't be possible. A transparent lie. This industry thrived for decades before loot boxes were introduced, and it will survive just fine if they're banned.

Speaking of Star Citizen: A game that actually delivers on the promise of Chris Roberts's Kickstarter is launching early in 2019. It's called Rebel Galaxy Outlaw, and its very existence debunks the idea that quality games can only exist via price gouging. I'm looking forward to seeing how the troll armies react..... PC

JAMES COTTEE
I guess this is a bad time to tell James that the Marvel films do in fact get me right in the feels. He would probably judge me... Well, judge me more.

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Is No Man's Sky's launch backlash still relevant to the game?

STAR CROSSED

Partway through construction of my megabase. On the right is a landing pad, and at the front is a wooden balcony complete with glowing plant containers. Steps take you underwater.

Right now there are two No Man's Skys. One is the game you can currently play and which has just stepped into the realms of true multiplayer via its Next update. The other is the game it was at launch which, in some corners of the internet, is preserved in aspic along with its attendant controversies and outrage.

To give a brief overview if you've managed to avoid it thus far: At launch and in the weeks immediately following, players and spectators needed to reconcile what the game was with what they had expected. For some people this was simple—they got what they thought they would get, and either enjoyed it or didn't. Those that did enjoy it went on to pour astonishing numbers of hours into the game. For others, the gap was harder to bridge, as hype-drunk expectations crashed into slightly clunky-looking proc-gen wildlife.

The latter almost immediately devolved into a question of "Who had lied and when?" resulting in a frightening harassment campaign against the studio and its staff involving death threats and necessitating the involvement of the Metropolitan Police and Scotland Yard. I should stress that not all disappointed players went to these extremes—some asked for refunds, or queried the game's advertizing, or just complained in the normal way.

The specter of No Man's Sky's fraught launch threatens to dominate conversations about the game even two years on. In that period, the game has had four massive free updates which significantly change the philosophy of the game from the version featured in media coverage or present when people first tried No Man's Sky.

Of the time I spend at Hello Games, the majority is devoted to the Next update. It adds multiplayer, both in terms of being able to play with others, and also to encounter others. There's a play session, an interview, and more. But this is the first time in two years that Hello is doing anything approaching a regular media cycle, and thus it's a chance to ask questions deferred since 2016.

"The internet is actually really good at spotting when people mess up," creative director Sean Murray says regarding launch. "[But] I don't think they necessarily are super good at finding the exact correct response, you know? But I think there's a bunch of things that were levelled at us that I'm like, 'Yeah, I think we could have done X, Y, and Z better.'"

> "The specter of No Man's Sky's fraught launch threatens to dominate conversations about the game even two years on."

MEDIA BLITZ

The amount Murray spoke with the media was the most obvious candidate for change. "I don't think we needed to do that. I think the game was super exciting to look at—it's a super exciting concept. I used to look at the trailers after we'd done them and I would get hyped. I was hyped about the game—that's part of the problem, but it was an exciting project to work on.

"We were put under a lot of pressure to do it, we'd come from working on Joe Danger, where we were begging people to write about it—suddenly everyone wanted to write about No Man's Sky. We did a load of those interviews. Arranged by Sony, I did 80 interviews in one day once."

An immediate improvement as Hello Games saw it, was to stop doing interviews and just work on the game's schedule of updates—show, don't tell. Ben Andac worked at Sony as part of the Strategic Content team. For No Man's Sky he evangelized the game internally at Sony, working on the initial partnership agreement between it and Hello. From that point he became the relationship manager—a linking force between the two companies. Andac describes it as

GETTING TO NEXT

A TIMELINE OF THE MAJOR MOMENTS LEADING TO THE LATEST UPDATE

2011
No Man's Sky begins life, although at this early stage it's a spare time project called Skyscraper which Sean Murray is working on solo.

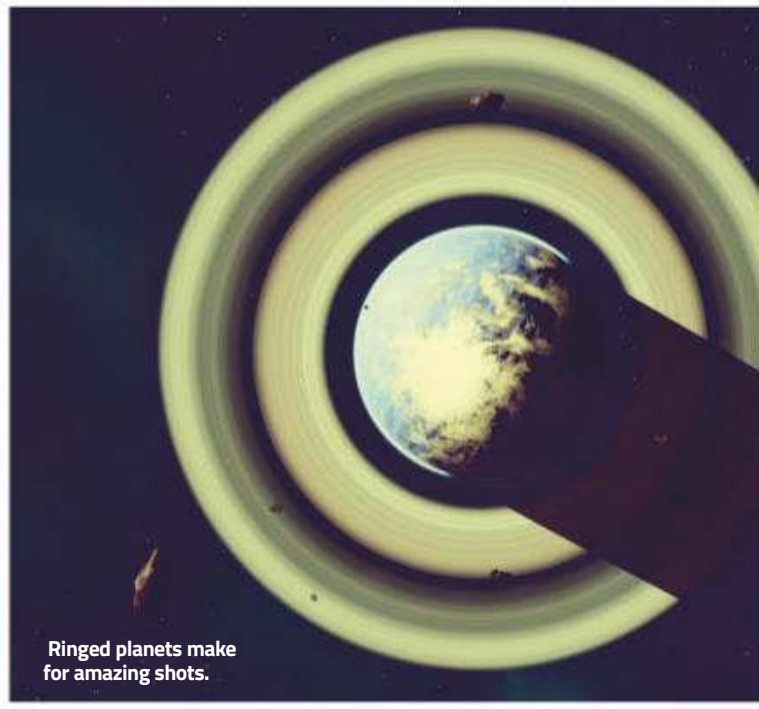
2012
After Joe Danger 2 ships, Murray goes full-time on No Man's Sky and other members of Hello Games move onto the project.

2013
No Man's Sky's first teaser trailer goes live. Six months later, No Man's Sky makes its E3 debut during the PlayStation conference.

2016
The game releases in August. Three months later the Foundation update adds content such as base-building, new modes and more.

2017
March's *Pathfinder* brings vehicles and permadeath, while August's *Atlas Rises* fleshes out story and makes other players visible as orbs.

Toggle between first and third-person view.


Ringed planets make for amazing shots.

A nice, tiny island on a ringed ocean planet.

"essentially being an advocate to ensure the team and the game got all the support we could provide. I think I'm listed in the credits as executive producer, which pretty much sums it up".

I ask Andac about the idea of doing 80 interviews in one day to get a sense for how normal that is. He can't confirm the exact number because it would depend on the specific event, but "it sounds about right. I recall a one-day event in London where we got in around 100 members of press from across Europe. I can't remember if every single journalist had one-on-one time with Sean—I don't believe so—but many did so it's entirely possible it was that amount".

He points out that every game is different in terms of the support it requires so the idea of what's 'normal' is tricky to quantify. But he explains that No Man's Sky was treated by Sony with as much importance as the key first-party titles that its senior product managers were also looking after, "which was unprecedented since it was a third-party game".

That said, this was a collaboration, not a traditional publisher-developer dynamic. Andac explains that Sony published the disc, but Hello was publisher on digital and retained the IP, so Sony support was always subject to approval by Hello Games. "Most of the time Sony helped to organize locations and arrange for attending press (at events like E3), but sometimes there were separate hotel suite press days organized by Hello; in either case there was always a discussion between Sony and Hello to coordinate these things as best we could."

BALANCING ACT

In promoting Next, Hello Games is dipping a toe back into traditional press trips and interviews as part of the release cycle. I'd say this combination of showing and telling was broadly successful, but had a noteworthy exception: The version of the update that came to GOG.com.

The multiplayer elements of Next—the major talking point of this update—will not be coming to the DRM-free version of the game sold via GOG.com until "later this year". The news came not in the run-up to the update's launch (which could have helped set expectations) but via a statement by Hello Games and GOG hours after the update went live. The impression is thus of a studio which hasn't yet quite figured out how to operate in the space between ALL INTERVIEWS ALL THE TIME and never speaking to anyone ever.

But, back in 2016, as the storm swirled the studio went dark, offering no interviews, just working flat out on Foundation, the mega update which arrived in November that year. Partly this was the decision to stop doing press in action, but it also taps into Murray's own instinct in tough situations—to focus on work.

"I basically did—and we as a group—what I've done all of my life whenever I've had to deal with shit," Murray says. "I just go to my work and I enjoy making games. I go and do that and work my way out of the situation."

I ask Andac for his own perspective on that period: "It was rough seeing some of the negative press (and then backlash) at launch when we knew that actually a large proportion of the players were playing and enjoying No Man's Sky. And of course, with all of the accusations from that vocal minority being amplified to a level that wasn't wholly representative, it was hard for everyone to focus.

"The initial reaction from some was to try to engage and talk about it; naturally people want to defend themselves when attacked, especially when some of those attacks feel unjust. However very soon after launch—in the week or two following release if I remember correctly—the advice that I gave Sean was that the best thing to do would be to not respond directly and throw fuel onto the fire; just remove the oxygen from the room.

NEW ARRIVALS

THE BIGGEST CHANGES NEXT BRINGS

01
MULTIPLAYER
You can now team up with friends and random travellers to play and build.

02
BASE-BUILDING
Hundreds of new parts were added, plus the ability to build anywhere.

03
THIRD-PERSON
Flying and walking now have the option of first or third-person view.

Opting for creative mode means no danger

"This was something that those at Sony who were actually involved in the project directly also supported and applied, and the sentiment was reflected by Hello who ran with that and—as Sean has said—they focused on the work of supporting the game post-launch, and letting the updates (which were always something he envisioned) be the response. I think it was the best course to take and I'm so glad that's the direction we all took. I think diving back into the work was ultimately the healthiest thing for Sean, the team, and the game, as we have seen over the past two years."

That health is reflected in Sean Murray's current appraisal of Hello Games: "This right now—apart from having to talk to press and stuff like that, and launch a thing [No Man's Sky's Next update]—is the happiest we've been as a studio, actually," he says. "I'm not just saying that. We have found our balance or rhythm or whatever."

But launch keeps rearing its head. The subject Murray most frequently gets invited to speak on at conferences and events is toxic culture or how to deal with releasing a game and experiencing a backlash.

He turns down those invites for three reasons. The first is that he doesn't enjoy talking to people in this capacity. The second is that he doesn't want No Man's Sky's story to be about the worst thing that happened in relation to the game. The third is that Murray says he has no useful advice to impart to anyone in a similar situation. "I don't know how you deal with it," he says. He and Hello just focused on the work.

JUST NOD AND SMILE

Andac agrees. "I worked on No Man's Sky for over four years, and was still working on it when I left Sony (about ten months after launch); it's been a huge part of my life. Since the release (and especially with the release of Next) I've heard of lot of people talking about No Man's Sky—what went right, what went wrong… a lot of different takes—and all I can really do as they tell me about how they would have 'managed' No Man's Sky is politely nod and smile."

He points out a tendency to oversimplify, and that the reality of the 'obvious' solutions offered up in hindsight by other people is often not as elegant or clear-cut as they may think. "This was unprecedented for all involved, there's really been nothing else like this at Sony, and if I could go back and do it all again—even with hindsight—I couldn't tell you that I'd do it any differently.

"Would I like to avoid the death threats and backlash? Sure. Do I think having Sean not appear on the Colbert show or not putting together a concert with 65 Days of Static at PSX would have achieved that? I don't know; and I don't believe anyone can honestly say they do.

"In terms of dealing with the extreme reactions expressed by the outraged few—that's just a nature of the world we currently live in sadly, just look at The Last Jedi and the James Gunn situations. The only thing I can suggest to deal with it is, in the words of Joshua [the computer from WarGames]: 'Not to play'. Except for No Man's Sky Next. You really should play that."

This chimes with something Murray says. That even though the studio doesn't want launch to be the legacy of No Man's Sky, "It's probably the most interesting part, right? For a wider audience who don't play the game or who aren't interested in the game—it's about the overall state of the world right now."

For me, No Man's Sky's launch is relevant to the game as it exists, but only because a) it shaped how Hello Games now shares information about the game, and b) it affects how people who don't currently play perceive it. For example, the latter means I often need to explain how the game has changed since the launch version before talking about the experience I'm interested in sharing.

> "Murray most frequently gets invited to speak on at conferences & events is toxic culture..."

REALITY CHECK

Beyond that, launch slips out of relevance to No Man's Sky as a game, becoming part of a broader conversation about digital culture: How we treat one another online; flashpoints for harassment; the way sharing content often strips out valuable context; the business incentives for "engagement" at any cost. They're all worth our time and consideration, but they aren't questions Hello Games should (or could) answer.

Instead, Hello is focused on the reality of playing No Man's Sky. Of changing the narrative by changing the game. "I get these weird emails that are like, 'Sorry about sending you that death threat. Anyway, loving the game—40 hours in!'" says Murray. "It's such a weird world." Murray notes the shift in attitude towards No Man's Sky in comments threads, and how rare such a phenomenon is online. "I haven't [before] seen that much of people changing their minds, and it's nice." *PHILIPPA WARR*

Now don't get any funny ideas, Fordham. If you so much as BREATHE on anything in here, I'll have you arrested for tampering with a crime scene.

Bit Part

We've got to hand it to adventures with intriguing settings and nonlinear structures.

I have a few credits on games, mostly for composing music. Until recently, I had thought Thimbleweed Park's 'HintTron 3000' would be the strangest, but it seems I've outdone myself. Technically, it's more of a grizzly cameo in Lamplight City, an adventure game by Francisco Gonzalez, of Shardlight and A Golden Wake. I knew the story was going to be dark when I signed up for the weird role, but I was actually a little shocked when I saw how 'my content' is presented later in the game. I've now played the detectives' first case...

The game opens with a horse and carriage ride. You're meeting a florist who has fallen victim to a spate of burglaries. An airship, the HMS Ligeia, drifts optimistically overhead. The city is shrouded by an orange, industrial haze and your partner likes to drink. It's recognisably rooted in 1844, although probably in an alternate universe. I'm not sure because, even after trying to research the setting, the whimsical technology presented has a kind of arrogant plausibility to it. Can you enlarge plants with aetheric currents? Did people try?

I love that history can be more than you imagined. My grandmother was born in 1910 and she told stories about World War 2 that I've never heard, or found referred to, anywhere else. Her sister self-published a memoir which details how the family's women worked, loved, and lived, in ways I hadn't even considered. Alternate universes can also challenge the lens through which we view the world. Ishiguro's Never Let Me Go may seem grotesque, until you read about the real life trafficking that mirrors the story's 'fictional' tenet.

Again, the presence of an interracial marriage in Lamplight City didn't immediately make me think, "Oh, this must be an alternate universe." I simply became interested in finding out more about the legality and prevalence of this through history, because it's not hard to imagine people loving each other, regardless of circumstance, through the ages. There's also commentary on spiritual and medical practices (bloody leeches), that seems to obscure the line between what we 'know' people experimented with and where their imagination may have led to, in private.

This ambiguousness suits a detective story and investigative approach. Where a dubious doctor has tranquilised a man from whom you need information, concocting a way to get him right again makes for a good puzzle. Supernatural elements, including in the form of ghostly commentary, might be blamed on trauma and medicine, but in a way that doesn't quite explain moments of curious insight. Gonzalez cleverly foreshadows events, too. As soon as I 'looked at' the airship, I knew what would happen to it later.

> "... it is relatively rare for the genre to allow you to fail along the way."

So, what cameo role could I possibly play in such a game? I remember a point and click adventure from the early 90s. I can't tell you what it was, but it was mostly green, black and white, possibly with a grid based inventory. The moment I recall most clearly is finding a touchpad in a basement and realising I needed to cut the hand off a dead body to open the door. As a young teenager, I thought this was the pinnacle of puzzling. I've seen severed hands in games since. Now I am one. My credit is 'Severed Hand Model'. How great is that?

My gruesome appendage isn't an inventory item, sadly, but it's interesting to note that the action in Lamplight City often progresses as a result of decision making, in addition to finding and using objects. In fact, I accidentally offended a couple of characters, which appears to lock content. When I failed to find enough evidence to lead to a trial, I willingly contributed to the framing of an innocent man. The game treated these as a valid choices and the story continued. Although the first case is explicit about when you're 'failing', future cases may be less so.

I also remember finishing Laura Bow: The Colonel's Bequest. I was like, "Cool, that's that." And then there was a little cutscene where Laura was floating down the river on a steamer thinking, "Gee, everything that happened was a real shame, best forget it and move on with my life, maybe the police will find the answers." And I was like, "Wait, what?" The idea that you could finish an adventure game badly was a revelation. Again, I have seen this many times since, but it is relatively rare for the genre to allow you to fail along the way.

I'm pretty proud to have a strange cameo in a game as cleverly structured as Lamplight City, and with such a thought provoking setting. Due for release in September, there will be a number of cases to solve, which seem tied together by an overarching plot, perhaps similar to in The Darkside Detective. It's definitely one for fans of the adventure genre and branching narrative systems. If you decide to visit this colourful past, made slightly askew, make sure to look for me. I promise I'll give you a wave. PC

MEGHANN O'NEILL invites you to write in and tell her the name of that 90s adventure with the severed hand. She's looked everywhere for it and still has no idea what it was.

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A Collection Aside

MEGHANN O'NEILL thought she wanted to be a hero, like she was in the 80s. She quickly learned, however, that being a firefly is much more relaxing. This collection will take you on a quest for glory, atop a unicorn with rainbow socks, through sea caves, to a beautiful, Japanese lake. Designers share anecdotes and insight into their process, too.

HERO U: ROGUE TO REDEMPTION

DEVELOPER TRANSOLAR GAMES • **PRICE** US$35
http://hero-u.com/

RELEASED

I literally sold the school shirt off my back so that I could ante into a game of Poobah. That was the moment I began to appreciate what Hero-U: Rogue to Redemption was trying to teach me about the character class I had so rarely picked in Quest for Glory. I had failed my friend in her dangerous quest, not because I was weak or amoral. I was inadequately prepared, lost my traps, and hadn't practiced enough with the rope and grapple. Determined not to let this happen again, I gambled the shirt money and won my friends' lyra, for the purpose of buying better gear.

There's a lot to that anecdote and there's a lot to this game. I have learned many things, and suffered for not learning quickly enough, in the 40 hours it took me to finish (with only 3 out of 20 possible achievements). I began trying to review Hero-U and ended up with so many questions about design that I decided to ask writer/designer/art director, Lori Cole, what in Gloriana they were thinking, in making this incredibly ambitious game. My first question was simple, yet I still messed it up; Why rogues? Cole says, "There is no rogue class at Hero University."

Yes, I did fail actual multiple choice exams and wasn't allowed to take a magic/paladin elective, despite the classes, readings and essays on this. 'Rogues' don't draw attention to themselves in case it undermines their activities. As such, Shawn arrives at Hero-U after being caught stealing and a mysterious patron offers to pay his fees. Having no apparent aptitude as a wizard or warrior, Shawn becomes a Disbarred Bard, a group who some mistakenly believe are allowed to stay only because they raise revenue for the school. (It's the secret rogue-hero class.)

Lori Cole is one of the original creators of Sierra's Quest for Glory series. Hero-U is an alpha-funded 'spiritual successor' set 18 years after Dragonfire which, as well as thoroughly fleshing out rogues, is built on QFG's idea that "practice makes perfect".

> "Players are naturally curious and want to explore. Our job is to give them a rich environment, but only a little at a time..."

Cole explains that typing 'throw dagger' in the original game "didn't seem like a lot of fun." She says, "We varied how to improve skills. Shawn can read books to learn more about lockpicking or making friends. Or, he can practice gaming in the recreation room, or challenge people to play billiards or cards.

"Then, there is always the option to go into danger to develop stats, too." Indeed, I stayed pretty close to the practice rooms at the beginning of the game, falling off the tightrope, dropping kettlebells. Lockpicking has an interesting progression,though. You first pick the lock to a practice room, then practice on lockers inside. Soon, you'll notice that doors around the school can be cracked after curfew, especially when classwork starts to encourage sneaking. Eventually, you'll be skilled enough to unlock areas requiring combat and practice 'on the job.'

The game suggests how to become bolder, while actually requiring you to do very little, apart from not getting expelled. (I was expelled twice.) Cole says, "Players are naturally curious and want to explore. Our job is to give them a rich environment, but only a little at a time, so that there is always something new and different to do/see in the game." So, why deliberately go into a perilous maze of catacombs, when you could examine an

abundance of paintings within the relative safety of castle walls? For treasure? To save a life? Simply because there is 'more to find'?

In Quest for Glory 2, you explored the incredible maze that was Shapeir, discovering doorways, meeting people and, as soon as you got comfortable something would change, like an air elemental terrorising the bazaar. One of the first complications in Hero-U is to investigate a spate of thefts. How is the thief getting around? Suddenly, a corridor you've traversed, many times, feels a little different. What was Urwald saying about detecting hidden passages? What did a student in the recreation room say about an unusual scent? Were you paying attention?

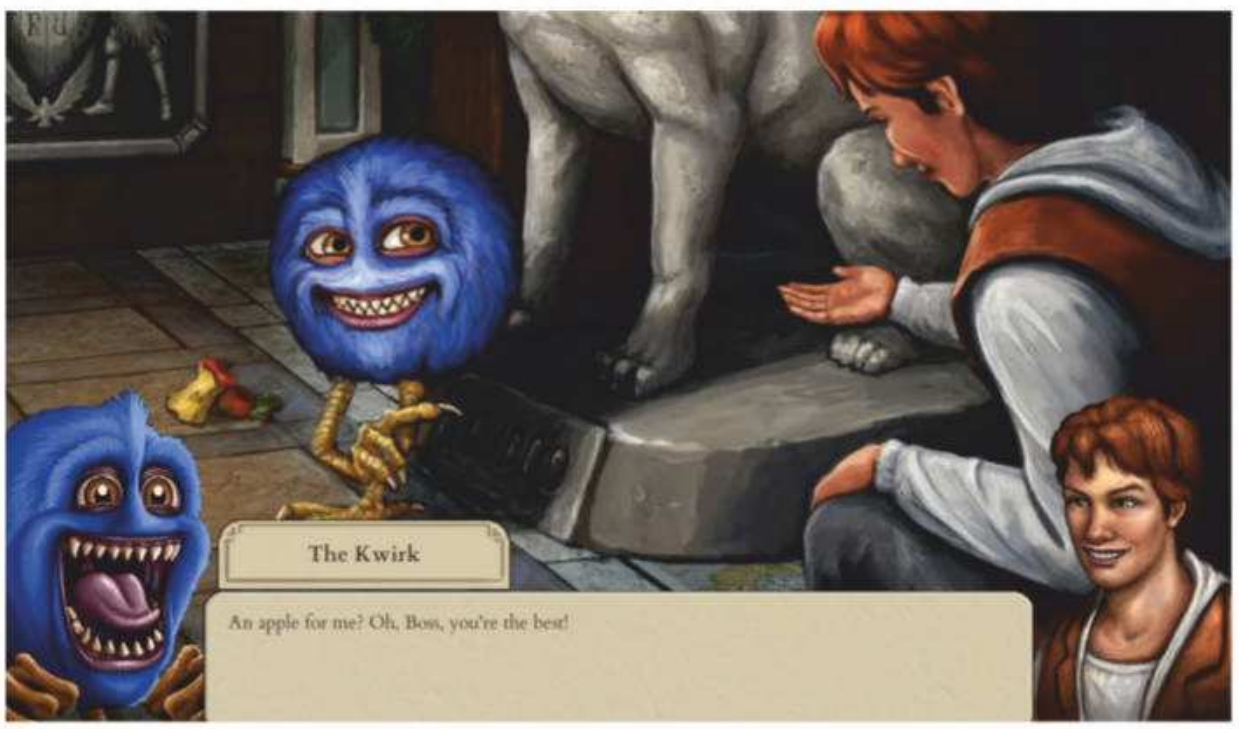
Time passes every time you move or act. Examining a trophy case might take 15 minutes, whereas studying in the library generally takes more than an hour. Sneaking takes longer than running but effectively renders you invisible to anyone nearby, depending on skill. What happens if you can't solve a timed challenge? Possibly nothing. Someone else might take the credit or the consequences could be more dire. Cole explains, "We wanted to create a sense of involvement and urgency, especially as Shawn earns money."

Although Shawn isn't allowed to venture into town, and I did miss the grandeur of Quest for Glory's evocative locations, the castle's dungeons, caves and catacombs are extensive. There's no quick travel to a map location and it can be exceptionally difficult to engage monsters until you have traps and runes, as well as finish up tasks before Shawn gets exhausted at 1am. "If the player has no chance to fail, then they have no challenge," Cole says, "Hero-U gives them the chance to experience consequences, some good, some bad."

Although I failed in many ways, and didn't get to every location in the game, I also experienced moments of heroism that felt authentically gritty. As Cole says, "Failure is a tool for learning, like the importance of friendship, and that anyone can become a hero by their actions." With so much optional content, including romance, the checks for game state, even as you walk through a door, are intense. Did you help the ghost puppy? Are you in a romance with this person? Have you discovered/solved that? How many days since you opened the cellar door? These things all matter.

The content is extremely generous, too. As well as fifty days, each with its delicious meal menu (seeing what the kattas had made for dinner was one of my favourite things about QFG), Shawn triggers a glut of cutscene art and dialogue for actions as simple as climbing stairs. I'd already pegged Hero-U as a pun-filled Hogwarts before Cole mentions they'd briefly considered the wizard class instead. But this story became uniquely about the deep experience of the cheeky, clever, perceptive hero I'd previously dismissed as fragile and corrupt.

Cole concludes, "We want the player to care about Shawn and the motley Disbarred Bards, have the thrill of discovering secret passageways, and the rush as a monster jumps out of the water. We want her to have the satisfaction of figuring out a puzzle and, above all, to have fun." Was I having fun desperately betting everything in Poobah to buy bandages? Absolutely. So, I want to be a hero? Cole suggests the series next intends to "take a dark and dangerous turn" in Hero-U: Wizard's Way. Yes, I suspect I'll be hurling a lot of flame darts at targets, wooden and otherwise.



RELEASED

THE ADVENTURE PALS

DEVELOPER MASSIVE MONSTER • **PRICE** US$15
fhttp://theadventurepals.com/

I spent so long trying to get to the end of Hero-U that I nearly forgot to play The Adventure Pals in time to review it. Luckily, with the help of my eight-year-old, we cruised through what is a very forgiving action-platformer. In fact, my son wanted to saddle up a giraffe (or rainbow unicorn) more than he wanted to play Fortnite, over which we've been bickering about 'accidentally' voice chatting with 'friends of friends', so that was a good thing, too. I honestly can't remember a more enjoyable family, multiplayer experience.

We were definitely hooked on the game's excessive humour by the first boss fight, where a giant tree with bulbous eyes mobilises roots, stumps and smaller trees against you. You can only hit it when its pants, um, bark, falls down, but that's not important. We were trying to pay a ransom of five rubies to rescue our mother from the moon when we realised things were more convoluted that they had seemed. So yes, let's mention the story. As a character says half-way through, "Why is everything just a thinly veiled plot to get five more rubies?"

Because predictability is awesome. Although Adventure Pals initially feels a bit like Cat Quest, with a map to trot around and quests to undertake, there's none of the backtracking because you're in the wrong level or didn't bring buffs. When the pals enter a new area, you know how long it will take to clear and what will be required. You're always getting five rubies and then either fighting a mini-boss or collecting something else, like sand to rebuild a sandcastle. Clear structure keeps the game moving forward, which is really great.

Adventure Pals also looks nostalgic, with its coins and over-the-top animations, without being much like old platformers at all. Most obviously (especially after playing Hero-U), the game actively encourages you when you're failing. For example, if two people are playing, one can do the bulk of fighting and exploring while 'Mummy takes a rest'. Also, as long as you keep one player alive at all times, you can't fail. Oh, and, if both die, you have to redo the level, but you're given a health potion as incentive to try again.

There's also an over-abundance of silly gear to buy. Merchants stock bombs, potions and stickers to stick inside your friend (who is a stickerbook). You can also feed five cupcakes to the cat with the cupcake-crown to unlock hats for your characters and pet rocks. Incidentally, the pet rocks often complete minigames to unlock routes through nonlinear levels. With platforming elements including grapples, ziplines, switches and slippery surfaces, as well as combat, my son and I never felt bored.

In fact, the kind of pre-breakfast (on-deadline), enthusiasm my son and I had for Adventure Pals reminded me of the many mornings I played games with my dad. Sadly, during development, designer/artist Julian Wilton's father passed away. He told me (with permission to share) that, "This changed my mindset about creative work and games, specifically. You can explore your thoughts and insecurities through games. I think it helped me move on." Adventure Pals is a joyful experience which I'm very glad to have shared with my son.

Hopefully he will remember it fondly, too.

ASHI: LAKE OF LIGHT

DEVELOPER NICK CELLINI • **PRICE** US$4
http://ashigame.com/

I generally expect to get stuck in puzzle games. Getting unstuck is the point of playing, right? Ashi: Lake of Light was challenging, at least sometimes, yet I never felt unable to proceed for long, and this was surprisingly nice. The interactable game pieces have a limited number of states so, if you can't see a solution, you can experiment to get clues, without feeling like you solved it by accident. Some pieces can't be changed, so it's also possible to work backwards around what must happen. If one approach isn't working, there are other things to try.

Fireflies must be guided to arches around floating candle holders, depending on how well lit they are. One candle will prompt a quarter turn, whereas two will send the firefly back the way it came, and so on. Sometimes you'll need to move the holders along rails to new positions and levels are further complicated by teleporters and colour, with the firefly changing between red and blue, then being attracted to candles of their new hue. There were enough incrementally added game pieces to keep my interest without being overwhelming.

I was also pleasantly surprised by how engaging the soundtrack is. Generally, I prefer sparse music in puzzle games, but only because I'm trying to concentrate on getting unstuck. Given the carefree nature of play, it's like taking the game to a concert, rather than hearing game music incidentally. I reached out to composer, David Barber, to ask after his intention for the music. He says, "To create a sense of calm and tranquility, helping the player to achieve a Zen-like state, as well as to evoke a feeling of curiosity and adventure."

The instrumental palette combines traditional Japanese instruments, to match the imagery, orchestral instruments, to "add a sense of gravitas and adventure" and electronic sounds to, "create a meditative atmosphere." Barber says, "The koto represents the ebb and flow of water, the shakuhachi is mystical and plaintive, and the shamisen, playful and curious. The flute captures the movements of a darting firefly and the use of solo instruments, like violin, cello and woodwinds, is a great way to capture the feel of a solitary figure on a journey."

> "I'm a huge fan of composers like Debussy and Takemitsu with their use of pointillistic textures."

As a musician myself, the music sounded pleasingly 'deliberate' where game music sometimes 'approximates' the stereotypical elements of a setting. On melodic development, Barber says, "I'm a huge fan of composers like Debussy and Takemitsu with their use of pointillistic textures. Traditional Japanese pentatonic scales or modes like the Hiraj□shi and In scale were great for creating washes of colour and don't always bind you to a major or minor tonality the way that Western music often can."

Ashi: Lake of Light subverted my expectations for the puzzle genre. I was never stuck and I was thoroughly engaged by the music. I found peaceful play and a composer who provided interesting and detailed insight into his process. PC

10 to Watch

1

Farming Simulator 19

DEVELOPER: GIANTS SOFTWARE
PUBLISHER: FOCUS HOME INTERACTIVE
DUE: NOVEMBER 2018
www.farming-simulator.com

▲ Look, I just can't excited about these endless iterations of digging holes in the ground and watching things go, but nor am I going to judge if that is your idea of a perfect afternoon in the front of the PC.

Personally, Farming Simulator 19 may boast deepest gameplay, greatest accuracy, and over 300 unique vehicles, as well American and European environments, but I'm… wait a minute… you can raise pigs and ride horses? I can farm with up to 16 friends? Even use mods?

Well, it ain't Stardew Valley, but I can raise a prize hog with some of my mates. Shit - guess I'm in.

2

The Gardens Between

DEVELOPER: THE VOXEL AGENTS
PUBLISHER: THE VOXEL AGENTS
DUE: NOW
thevoxelagents.com/gardensbetween

▲ Have you ever sat down with a friend, and wondered what kind of awesome fun you could have if…

You could control time?!

That's the premise of The Gardens Between, and with those powers you'll travel through a mysterious archipelago of islands, solving puzzles along the way. As you journey, the landscape is scattered with artifacts and objects from your life, and you'll uncover the threads that link the two friends.

The game boasts a storybook aesthetic, 20 different islands to explore, and game mechanics designed to be as accessible as possible.

3

Espire 1: VR Operative

DEVELOPER: DIGITAL LODE • **PUBLISHER**: TRIPWIRE INTERACTIVE • **DUE**: 2019
Espire1.com

Well, you gotta give it to developer Digital Load - it's not afraid of being ambitious!

It describes its VR stealth game Espire 1: VR Operative as ""Goldeneye 007 meets Metal Gear Solid", and I guess if you're aiming that high, you may as well make a boast of it. That said, while the idea of a VR stealth game may sound hard to pull off, the game's premise sounds really quite clever. You're basically a drone operator, remotely piloting a stealth suit into over 200 virtual locations, and wherever you've set up your VR space becomes the game's Espire Control Center.

The game's due next year on Rift and Vive.

4

Encased

DEVELOPER: DARK CRYSTAL GAMES • **PUBLISHER**: DARK CRYSTAL GAMES • **DUE**: APRIL 2019
Darkcrystalgames.com

There are few genres of games as beloved as the isometric RPGs of yore, and developer Dark Crystal Games is hoping to mine that heavy lode of nostalgia with Encased, it at-time-of-writing Kickstarter project that will hopefully (fingers crossed!) hit Steam's Early Access next year.

The game tasks you with exploring a long-dead civilisation and its artifacts. There are mysteries to solve and discoveries to make, as your decisions change the world around you. Encased features turn-based combat that gives players a lot of choices in how they handle each encounter, and a highly replayable campaign that lasts up to 30 hours.

5

Override: Mech City Brawl

DEVELOPER: THE BALANCE INC
PUBLISHER: MODUS GAMES
DUE: DECEMBER 2018
www.overridegame.com

Giant robots, stomping cities and each either - what's not to like? That's pretty much the elevator pitch for Override, a 3D brawler all about beating your opponent to scrap, while levelling the great cities of the world. And, yes, you can stomp Tokyo, which I am sure has been a life-long dream of giant mecha/monster fans everywhere. And San Francisco. And even entire countries - sorry Mexico and Egypt.

There's local and online versus, party co-op with four players, and the chance to customise your mech to fight in the dirtiest ways possible.

The Dark Room

6

DEVELOPER: STIRFIRE STUDIOS/THE FEAR CORP
PUBLISHER: STIRFIRE STUDIOS
DUE: IN EARLY ACCESS NOW
www.thejohnrobertson.com/thedarkroom

▲ Gonna be honest here, I'm not sure how this one works. John Robertson is a comedian, and he's taken his comedy show from Sydney to the prestigious Edinburgh Comedy Festival and beyond, and now his show is… a game? His show is apparently a parody of retro gaming, so the actual game version of his show is essentially a remarkably mean-spirited text adventure that sees you waking up in a dark room (oh, I see…), and getting abused by a mysterious and rather pugnacious individual who will punish you for almost every choice you make.
And it's meant to be fun, I guess?

Probably. But it is an Australian game, so you know, support your local industry!

Fear the Wolves

7

DEVELOPER: VOSTOK GAMES • **PUBLISHER**: FOCUS HOME INTERACTIVE • **DUE**: IN EARLY ACCESS NOW
www.fear-the-wolves.com

▲ In meeting rooms across the globe, developers are asking the question - "How can we make a new battle royale game, and then retire from the crunch for good?" Vostok Games answer to the challenge is take the tried and true recipe - 100 players, parachuting into a map, and gearing up and shooting face until only one player survives - and combined it with wild and irradiated setting of Chernobyl.

And since Vostok is the team behind the similarly themed Survarium, and with veterans from the STALKER team… yeah, I guess they know how to make a grim Russion shooter.

Early reviews are mixed at the moment, but if there's an environment where the battle royale formula actually seems to make sense, this is it. We'll definitely be giving it a go…

Dream Gear Builder

8

DEVELOPER: ROKOO • **PUBLISHER**: ROKOO • **DUE**: OUT NOW
www.dreamcarracing3d.com/

▲ Okay, so while the art may not look like much, the idea behind Dream Car Builder is kind of intriguing. It pretty much does it says on the tin, letting you design a car from scratch, then race on procedural tracks while trying to avoid the game's rather crunchy soft-body physics.

The real challenge is that you build EVERY PART, from struts in the chassis, to how best to steer, where to put the engine (don't forget the driver!).
It looks super detailed, and kinda fun.

Plus, those crash physics look immensely satisfying…

War of Conquest

9

DEVELOPER: IRONZOG
PUBLISHER: IRONZOG
DUE: IN EARLY ACCESS NOW
Warofconquest.com

▼ I can't tell if War of Conquest is too clever for me to realise just how clever it is, or not nearly as clever as its creators think. It's tower defense; it's massively multiplayer; it's based on an old RTS; and it's free?

Also, it appears to be half made and missing some textures but what would I know?

So, really, I guess if you're at all curious about a giant world of multiplayer strategy and apparently deep but simple mechanics, it'll at least cost you nothing!

10

Timespinners

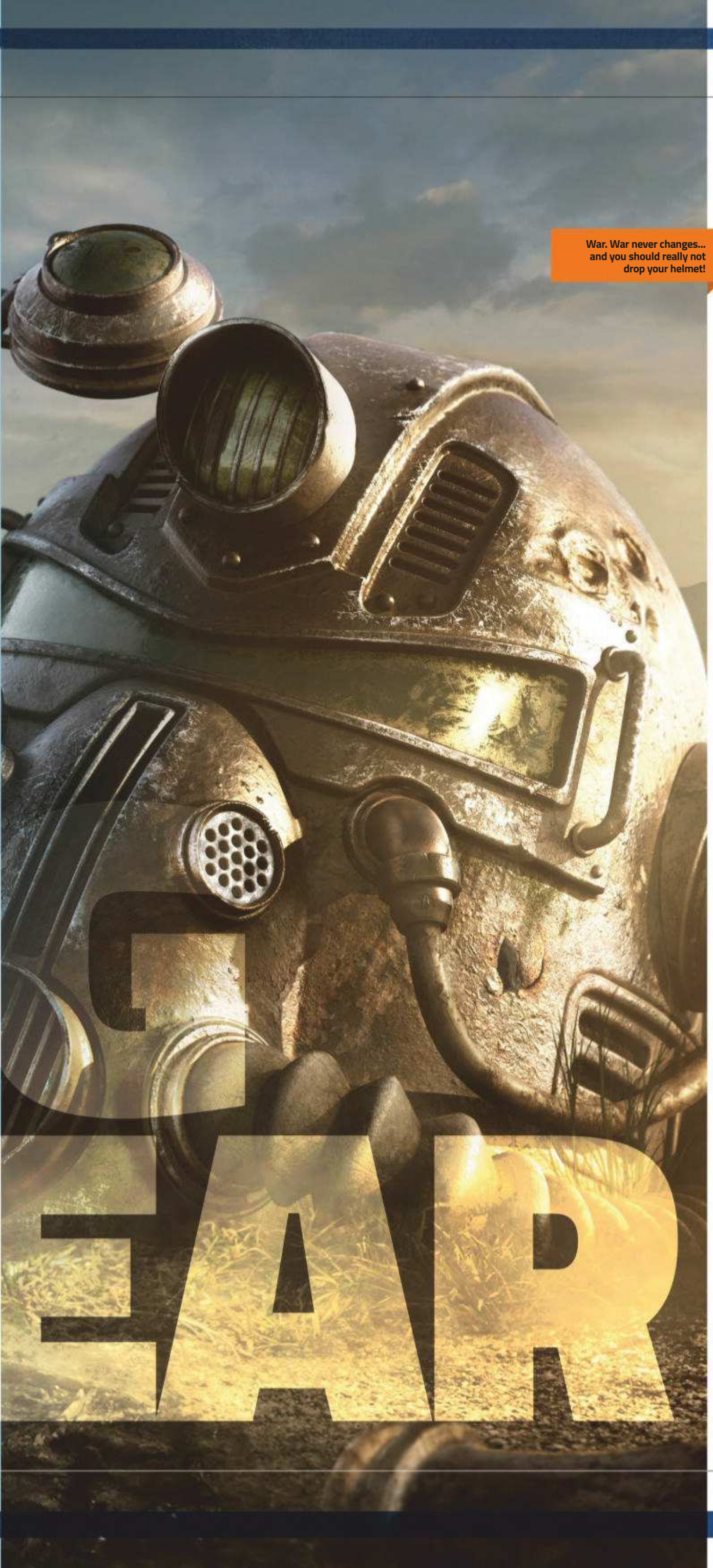
DEVELOPER: LUNAR RAY GAMES
PUBLISHER: CHUCKLEFISH
DUE: NOW
Timespinnergame.com

▲ Your family is murdered and your transported to a strange new world and… well, it's pretty stressful, to be honest, but thankfully you can control time, so, yay!

Timespinners is inspired the action platformers of yore, complete with a PS1-style soundtrack, a two-player co-op mode, and some really quite lovely pixel art. Track down magic orbs and beat up bosses! Jump a lot! Solve puzzles and jump back and forth in time!

Fallout 76

A post-apocalyptic holiday for you and your friends



War. War never changes... and you should really not drop your helmet!

Fallout 76 plays like any other Fallout game. You begin your journey creating a character and stepping outside the security of Vault 76 to the wide open world of a post-nuclear war. Exploring relics of a forgotten time, you can explore abandoned buildings, hard-scrabble camps, and build your own community. You can play as a vigilante, a hero, a travelling merchant, a marauder, barter your way through life or resolve issues violently and with persuasion. Unlike past games in the series, however, instead of playing alone, you'll be alongside other players in an always online world.

In Fallout lore, Vault 76 is one of few controlled vaults that is designed to house people in the hopes they can resettle and restore society after the nuclear war. Set 25 years after the bombs are first dropped, and 200 years before the events of Fallout 4, the game follows the first group of vault dwellers leaving the safety of their home to the post apocalyptic world outside.

BALANCING SINGLE-PLAYER AND CO-OPTIONAL PLAY

As Bethesda Softworks Vice President Pete Hines explained to The Know, Fallout 76's online component is not an MMO, nor a battle royale experience, but a world populated by up to 12 players. In an effort to make encounters between other players more special and tense, there are no fully-fleshed out NPCs for you to recruit and fight with in Fallout 76. Rather, the world is dense with mutants, points of interest, natural threats, and other players. While many may be disappointed by the absence of the richly developed and engaging companions they've come to know from the Fallout series, Hines says that adding enemy human NPCs like raiders would make it hard to decipher whether what you're fighting is a player or non-playable character. Bethesda wants to make seeing another human in the distance a tense and paranoid experience - but how you choose

to interact with others is purely up to you.

"You have the ability to decide whether to play with other players, if that matters to you," Hines told The Know. "If you see your friend playing and decide you want to play with her, then you are now in the world that she's playing in, but if not, you'll just be playing in your world and who knows who will be in that same one."

"They aren't NPCs, they're real people," Todd Howard told IGN. "There are obviously differences in how you communicate or what other people might want you to do… We still have robots and we use robots a lot for delivering what the quest story is and what would traditionally be told by a human NPC."

While you can party with up to three other friends and go on quests together, Hines insists that you will still be able to experience a traditional Bethesda single player campaign and play solo. Like in Fallout 4, you can build your own settlement, but also create a community with other players and invade others. You can trade with other players but also chose to keep all your resources to yourself.

"When you log off, your camp goes with you," Howard told IGN. "No one can mess with it. When you log in, we put your camp back in."

To best balance the always online mentality of Fallout 76 with the traditionally single player player base, Bethesda is also tweaking familiar gameplay mechanics of the series to be more online-friendly. The Vault-Tec Targeting System (VATS) mechanic, a handy feature that allows you to slow down time and auto-fire on specific body parts of an enemy, no longer freezes time and, understandably, there's no NPC reputation or opinion of you that can be changed by your actions.

Although Bethesda admits that it's still in the middle of playtesting and finalising how to best integrate Fallout gameplay into a multiplayer setting, the real-time aspect of an always online game means there is no actual pause menu, and you can still be attacked while micromanaging your inventory. Character progression has been changed to skills becoming equipable, point-based cards that you can assign to your S.P.E.C.I.A.L stats, and you can combine cards to make more powerful skills. Spending points upgrading a specific S.P.E.C.I.A.L gives you more points you can spend assigning cards to that character trait, allowing you to customise your character as a specific build - a charmer with high charisma or melee user with brute strength, for instance - without committing to certain skills. Other online functions, like PvP, are being controlled to be single-player friendly. When you're killed by another player, you won't lose progress or loot, and will be able to respawn to a far away location to avoid being griefed by the player that killed you in the first place.

> "Like in Fallout 4, you can build your own settlement, but also create a community with other players..."

You'll also be able to temporarily change the layout of the land by firing nukes onto the map, creating high level zones within those areas where creatures and things inside become irradiated. In many ways, these "high content survival areas" act like temporary raids, where you can earn rare items and fight tougher creatures in a specific area for a limited time. While some players may use these to sabotage other settlements, Hines says you'll need to find various codes scattered around the map to fire a nuke, and will be warned if a nuke is being fired on your location with plenty of notice to evacuate.

"The whole theme of this game is that you emerge and the world is a blank canvas," Hines explained to Variety. "It's your job to rebuild the world and everything that means. If you want to be nomadic and never put roots in one place, you can totally do that."

PAY TO PLAY?

Bethesda promises that they'll be constantly updating the game with free updates. Although there will be microtransactions, they will only be related to cosmetic features and you can effectively get all of them eventually with in-game resources.

THE ORIGINS OF 76

The idea of an always online multiplayer Fallout experience first came to Howard and the team when developing Fallout 4 in 2014. After someone suggested the idea of a co-optional Fallout experience in a meeting, Bethesda Games Softworks discussed it as a possible feature for Fallout 4, but it soon became obvious it was too big of a project for the time they had, and it was put on hold in order to focus on the single player campaign. Shortly after, Bethesda's parent company Zenimax opened a new studio - BattleCry Studios - made up of veteran ex-MMO game developers from Austin, Texas, who had worked on games such as Ultima Online and Star Wars: The Old Republic. The studio began work on a new, class-based multiplayer game called BattleCry, which was soon suspended and staff were laid off.

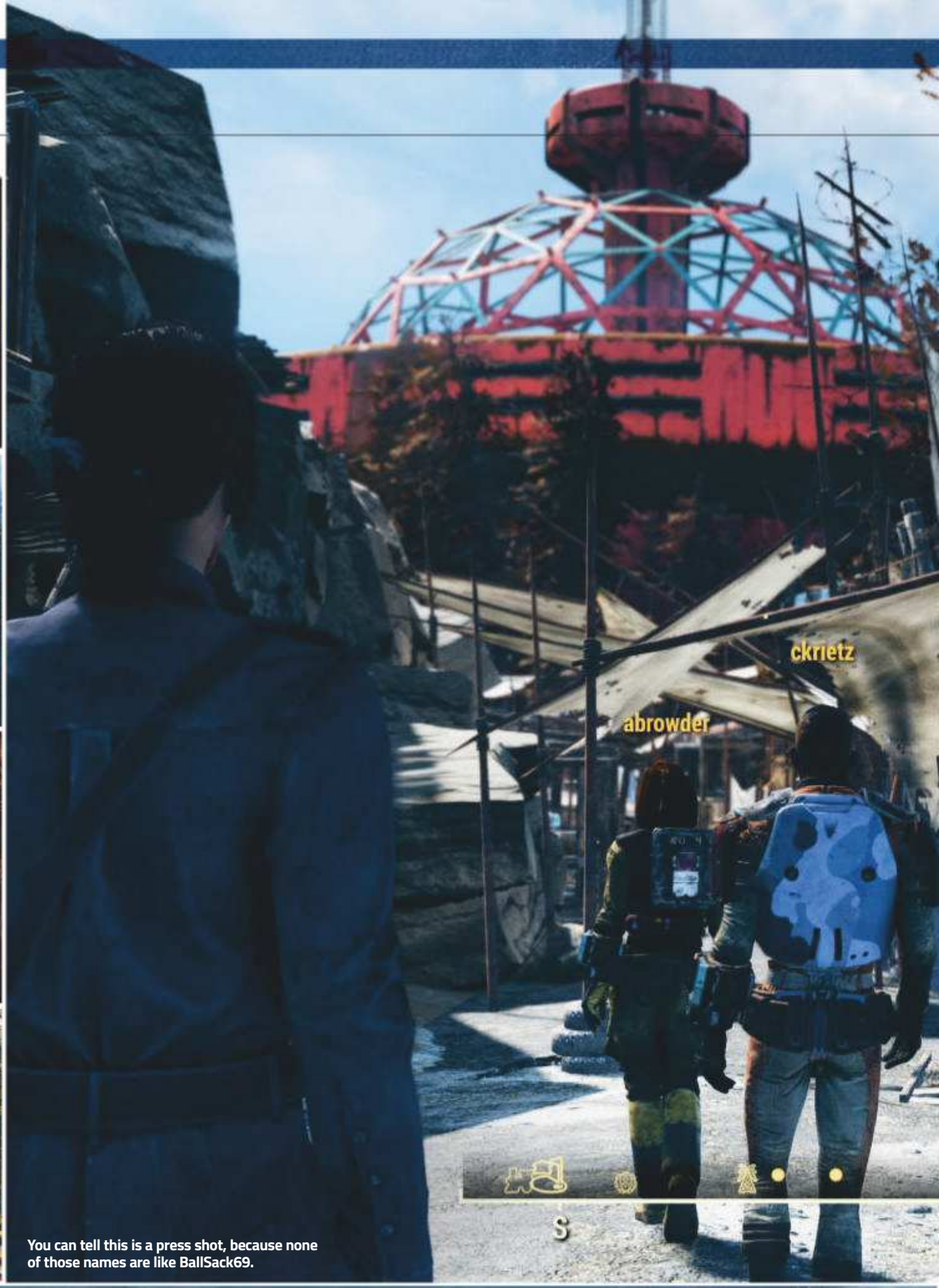
As Bethesda Games Studios' Todd Howard explained to NoClip, the lead programmer of Fallout 76 had worked with many of these developers, and given how grand of a task applying Bethesda's expansive open world settings, rich with opportunity and interactivity, to an online multiplayer setting was shaping up to be, their expertise was seeming increasingly valuable. BattleCry Studios, along with the developers of Fallout

What you really want to know is how detailed the in-game camera effects are, right?!

Did anyone order a giant angry mutant... sloth thing?

I hope this party of four call themselves the Wiggles.

Fallout 76's skill system is built around stacking cards into various abilties, because card games are... fun, I guess?



You can tell this is a press shot, because none of those names are like BallSack69.

"One day, son, all of this will be yours... Or it will be nuked. Your call."

Shelter, Bethesda Games Studios' Montreal studio, joined the team. When Fallout 4 was released in November 2015, BattleCry Studios was tasked with creating a prototype online Fallout experience, applying ID Software's Quake Netcode to the Fallout 4 engine.

As Development Director at Bethesda Games Studios Austin, Chris Mayer, explained to NoClip, the engine had been around since Morrowind but nothing that had been made in it was built with multiplayer in mind. The engine was based around a world with a player, but needed to change to focus on the player in any possible world. The engine utilised a design philosophy that Mayer and Studio Director at Bethesda Games Studios Austin, Doug Mellencamp, describe as the "Atlas": a design tool that used the single playable perspective of a single player campaign as a framework for designing the world around them.

"Atlas is because there is one guy in the game, we called him Atlas because he held up the world," Mellencamp told NoClip. "The world that you have only had to be accessed by one player so they were tightly intertwined. So what we had to do was essentially decouple Atlas from the world so there could be multiple people." "Wherever Atlas went, that's what was loaded," added Mayer. "You couldn't go away from Atlas as another player. You were outside the actual realm that was loaded. A big effort was just changing that aspect, but that spreads out into all the quests; multiple people could be doing the same quest and at different stages. The quest needs to live off the character and no longer the quest itself, so that was very challenging as well."

YOUR GAME, YOUR WAY

While not available at launch, you'll eventually be able to create your own private server and add mods to the game. It's unclear how this will exactly work in a multiplayer environment, but there's a potential for servers with rich roleplay AUs, and players creating and giving quests as mock-npcs.

THE WORLD OF WEST VIRGINIA

On the 12th of November 1966, five men spotted a man-like figure with large moth wings fly over them while they digging a grave at a cemetery in West Virginia. A few days after, two young couples told police they felt they were being watched by a large grey creature with glowing red eyes, who later followed them as they drove through a former World War II munitions factory. Following several other reports and the collapse of a famous bridge in 1967 that killed 46 people, the myth of the cryptid Mothman creature began.

In Fallout 76, not only can you come across the Mothman, but an entire abundance of supernatural nature inspired by the rich and haunting folktales of West Virginia. Fallout 76's landscape is harsh and unforgiving, even without the need of human non-playable characters. Of course, you'll encounter mutants and feral ghouls, but for the most part you'll be experiencing the world of West Virginia through famous points of interest and vicious wildlife.

"It's [set] closer to when the bombs were actually detonated so there's more radiation," added lead artist Nate Purkeypile. "You can get crazier mutants and giant plants because it's more radiated at that time."

The world of Fallout 76 is four times the size of Fallout 4 and boasts a diverse range of environments. There are six distinct areas in Bethesda's West Virginia: the forestlands, a biome populated by trees, vegetation and hills and where you first begin your journey; the Ash Heap, an area ruined by chemically-dense factories, filled with abandoned mines and hollow mountains; the Savage Divide, a barren wasteland that divides the map; the Cranberry Bog, an area of, well, bogs, based on the real life location of Cranberry Glades, dense with carnivorous plants; the rich swamplands of The Mire; and the heavily irradiated and mutated lands of the Toxic Valley, a high level dangerous zone home to a crashed space station. Setting the game only 25 years after the war allows Bethesda to create a world not yet entirely ruined by nuclear warfare, and show the gradual effect of the nuclear bombs.

"If there ever were a nuclear war, none of us would be here," explained studio director Ashley Cheng, "DC is done but West Virginia, no one's going to nuke West Virginia so we were thinking we would be able to do more trees and an interesting visual look."

To truly capture the life of place, the team of lead artists visited key locations in the state and began planning how they could apply them to the rich Fallout lore. The pristine white architecture of Morgantown University is now an abandoned Vault-Tec University populated by friendly robot sentries, the Charleston Fire Department now a critically irradiated campsite near a deep valley turned volcanic lake, and the lighthouse in the middle of land a reminder of a real life landlocked lighthouse overlooking a national parkland.

Fallout 76 boasts a very new and different Fallout experience. While it's still unclear what exactly we will be playing come November, Bethesda are carefully creating a world that combines the rich open world environments and camp nuclear warfare aesthetics of the cold war we've come to love about the Fallout franchise with the rush of experiencing it all with another player. Only time will tell whether it will be as enjoyable as a singleplayer Fallout game, for both those playing alone and with other players, but if so, it could be one of the most unique games in Bethesda's repertoire.

JULIAN RIZZO-SMITH

Return to Raccoon City

Resident Evil 2 Remake: In with the old and in with the new

In many ways, the Resident Evil 2 Remake represents the past, present and future of the popular survival horror franchise. The recently announced remake features a familiar sense of isolating paranoia and series iconography - like inventory management and limited resources - and is set in the ruined Raccoon City, but with modern gameplay and visuals. Resident Evil 2's Re-creators, producers Tsuyoshi Kanda (Resident Evil 7) and Yoshiaki Hirabayashi (Resident Evil 5 and Resident Evil 7), are drawing on their experience as fans of the series, as well as their skill as developers, adding elements from the games in the series that people love.

As a result, Resident Evil 2's gameplay is more akin to Resident Evil 4 and Resident Evil 7: the tank controls and fixed camera angles are now replaced with a more accessible over-the-shoulder third person perspective; the visuals and HUD display are similar to Resident Evil 7, and it's made in the same engine. As Kanda tells IGN, the change from a fixed fly-on-the-wall camera angle allows for a greater sense of tension and immersion in combat situations as the team can close in on Leon struggling to push away an undead or zombie dog.

"We know it's a big change to have gone to over the should," Kanda admitted, "but we think it's perfect for the experience we want to portray. We didn't want it turning into a shooter. It's about having this tiny frame, about the claustrophobia."

"The original three games had fixed camera perspectives, and it seems like every three games or so there's a sea change in perspective and style," Kanda further explained to Variety. "We always consider as we move through the series, what is "Resident Evil," and what is the essence of the experience we want players to have? As time moves forward and technology advances and new graphical capabilities become possible, we're always able to challenge ourselves as to what "Resident Evil" really is - a camera system or a gameplay system - but I think the ongoing change is a constant, ongoing reexamination and reinterpretation of the essence of "Resident Evil" as a series."

In this way, the team decided to change the way the story and certain iconic moments were told to add a further sense of tension to players familiar with the game. In the original Resident Evil 2, you first encounter the licker in a small corridor: you spot the headless remains of its prey and a pool of blood like violently coded breadcrumbs before it drops down and attacks. Yet in the remake, he doesn't appear till later. Bodies hanging from the ceiling, claw marks against the walls, and a body ripped apart by its claws hint that it's near, but you never know when it'll appear.

"We're trying to bring back all the classic memories you have of Resident Evil 2, but we also want to not just meet, but exceed your expectations of what we can do," Hirabayashi told IGN. "So we're taking that moment and reimagining it for you, so you're even tenser, [worrying,] "well, when's he gonna come out? I don't know.""

Set two months after the events of the original Resident Evil, Resident Evil 2 follows the characters of rookie police officer Leon S. Kennedy and survivor Claire Redfield as they try to escape the zombie-ridden Raccoon City. The build I played - at E3 earlier in the year - followed the first 20 minutes of Resident Evil 2 as Leon investigates the fallen city's police station. Shortly after witnessing security footage of a police officer telling me

Who's a good boy? Not this guy.

Angst over the zombie apocalypse never looked so good!

> "We always consider as we move through the series, what is "Resident Evil,"?"

"Hello, I would like to connect with you on LinkedIn."

to his location, as he fended off a crawling undead, the lights went out. There I was, walking through darkened hallways with only a flashlight and twelve bullets. As I made my way further into the station, I could hear the squishing of my feet against the wet floor echo down the hallway, hollow sounds of the wind against the barred windows, shuffling empty cans and boxes, the rattling of chains, and the echoing gurgles and grunts of undead nearby. Within my first ten mins, Resident Evil 2 captured the uncomfortable eeriness and isolated loneliness of exploring an abandoned and overrun facility alone.

The original game was told through four different campaigns - from the perspectives of Leon and Claire - and had you revisit several locations four times to uncover the true ending. According to Hirabayashi, this has been streamlined to just a Leon and Claire story for simplicity.

"One of the great things about the original was this sort of two character system where you could get a different perspective on events," Hirabayashi told Rely on Horror. "There was A and B parts to each character. We still want to replicate that feeling of seeing two sides to the same story through both character's perspective in their own way."

"I think players today, they want these sort of deep[ly] intense experiences with the story, and by stretching it across four scenarios the story gets spread a little thin and creates a sense of repetition by going through the game multiple times to see everything. So for that reason, we went with two campaigns that still show all the events of each character's story rather than have it all split up."

While I'd argue that with the commercial success of Nier Automata, a game that requires you to play it at least four different times to experience the true ending, fans wouldn't necessarily have a problem with playing a game a few times if the environments and experience are interestingly different enough. Even then, the actions you make in one playthrough will supposedly have an impact on the other: barricading a window in a hallway will make less zombies appear when you revisit that location as another character.

It's been two decades since the release of Resident Evil 2 and this remake is exactly what a modern retelling of one of the most memorable survival horror experiences should be. Thanks to 4K HD support and the graphical and CPU capabilities of the Resident Evil engine, specifically when compared to what was available to Capcom in the late 1990s, Resident Evil 2 not only looks better than how you remember it, but it plays better, too.

JULIAN RIZZO-SMITH PC

Come on, Bethesda - you could have at least let us play with cars a little bit!

Maintaining the... Anger?

WIth Rage 2 - Avalanche Studios is doing a solid impression of id - in all the best ways.

So you take Borderlands and you drop the cel-shaded graphics and hitpoint fountains. You take a dash of Fallout. You get one of the best smartest devs on the planet to make everything look shiny, and you then inject the results with BRO DO YOU EVEN LIFT levels of steroids.

The result of this melange of influences would, I think, look and play a lot like Rage 2.

There was a significant pre-roll video I watched before going hands on at Gamescom, recently, which focused on the open world, the different biomes and environments, and the vehicular side of the game - but the demo itself was pure run-and-gun, following a brief introduction to the powers on offer in the game.

To call these bombastic and over the top is rather an understatement - they're silly-powerful and a lot of fun to use. You can leap into the air before smashing down into your opponents, you can dodge around with handy speed, and as you keep up your kill count and general sense of ongoing carnage, you can unlock a special Overcharge mode - turn this on and you heal up, deliver crazy damage with all your attacks, and generally charge around like a high-energy deathdealer on the 'good' speed.

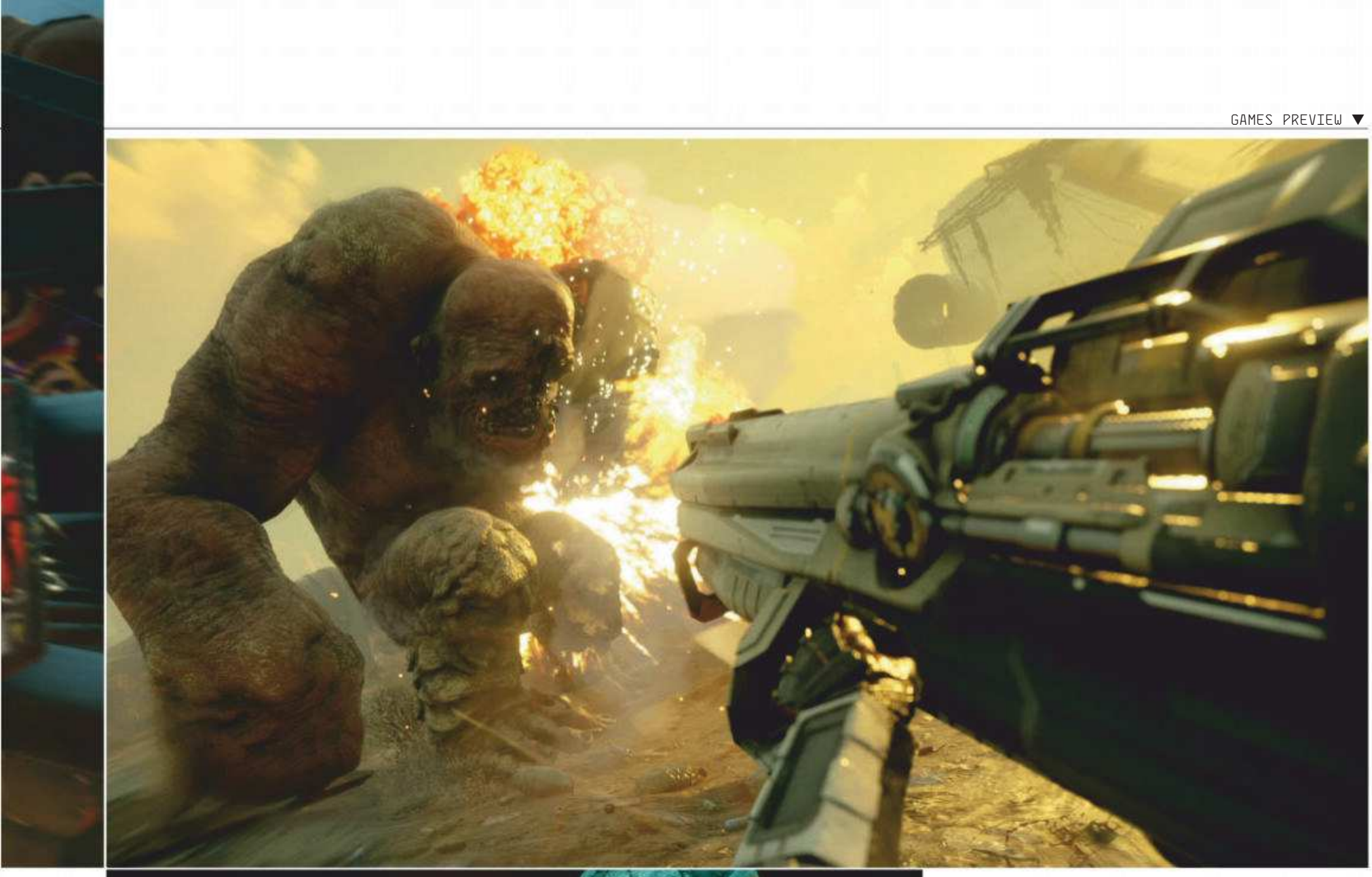
And there's the Wingstick, which is still fun, but now even more useful - it can lock onto targets and - even if they break line of site from you - still take them out.

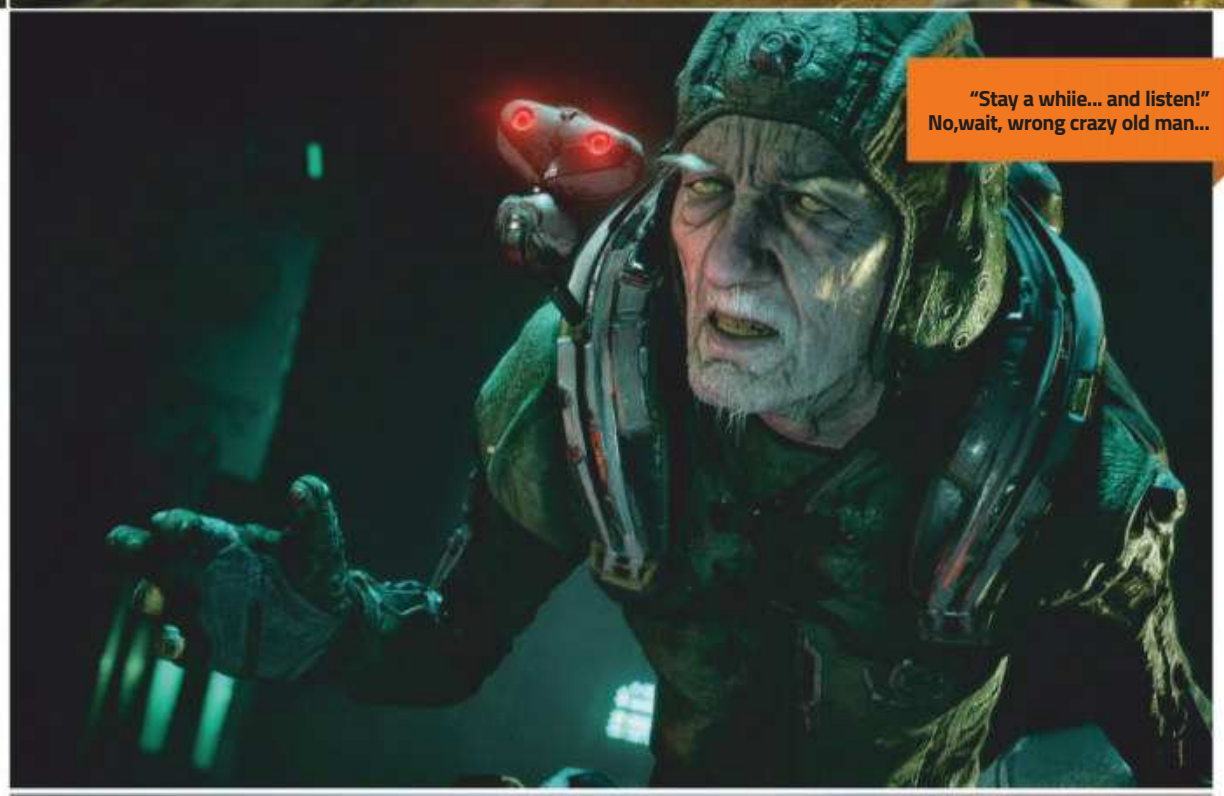
The demo began in an open area before a satellite control tower, with you charged to run in, shoot all the badguys, and bring some kind of bioreactor thingy down from orbit. Frankly this isn't a 'plot' kind of game - everything happens to move you from one scene of devastation to another.

And ho boy... I am not a fan of this hyper-kinetic style of shooter (I'm old - get off my lawn, etc, etc), so it took some getting used to, and while we were at least playing on PC, the game's not yet keyboard-and-mouse-optimised - so I was grappling with a lot of controls packed into an Xbox controller and that sure did cramp my style some.

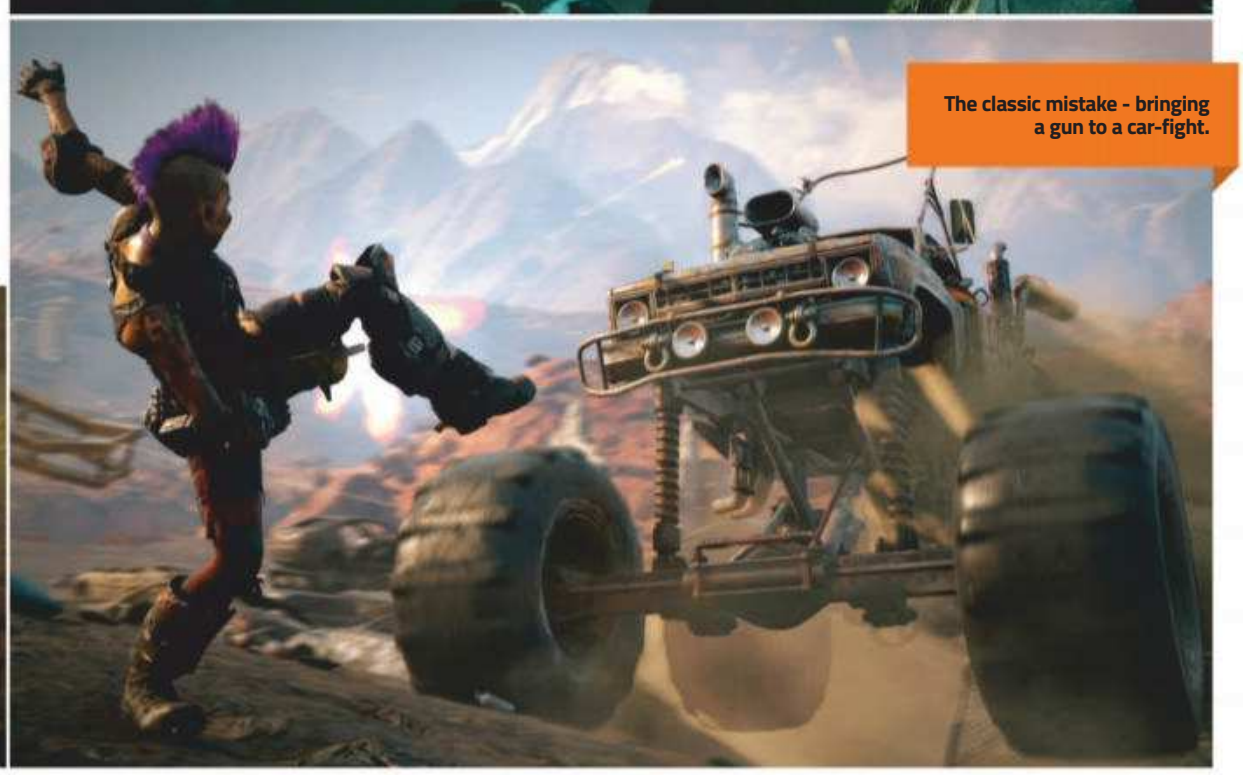
Thankfully, even with all the shiny options for blowing badguys and gals into gibs, good old running around like a madman and shooting people in the face works just fine. Keep it up enough and Overcharge kicks in and that is super fun - though it's worth holding onto for those moments when you're either outnumbered, or about to go down to your last smidgin of health.

> "Overcharge mode - turn this on and you heal up, deliver crazy damage with all your attacks."





"Stay a whiie... and listen!" No,wait, wrong crazy old man...



The classic mistake - bringing a gun to a car-fight.

There's clearly a lot more in the game than we saw - the components we kept picking up throughout the level suggest some kind of crafting or economy to trade in - but otherwise it feels delightfully id-like, especially once I cleared the outside area and got into the facility. Movement is as smooth and kinetic as you'd expect, and the weaponry on offer relatively satisfying. The assault rifle and pistol do what they say on the tin, but it's the shotgun that is the most fun - a definite homage to id's own mastery of the weapon..

The combat loop is pretty solid, and while it did get rather... old in the first game, this is looking like there's more to play with both in the environment and in your player toolkit. Close range shots and bullets to the head can drop a enemy instantly, but otherwise time-to-kill is relatively long - but with each blast you're taking off armour and other bits of costume, spinning people around or knocking them back, so you can either keep pumping in rounds or close in for a swift butt-stroke.

There's very little need for precision in the game, but spotting a group of enemies clumping too close together, throwing out a grenade, and then knocking them off balance with a single shotgun blast before ducking back around the corner to avoid the explosion is one of those pure shooter moments that can't be denied.

When Rage 2 was announced, it really felt like the sequel that no one was asking for, but it's looking as though it may just justify itself. With so much of the game - the open world and vehicle combat - still a mystery it's hard to judge at this stage, but I will say this:

I'm looking forward to seeing those all components in action.

DAVID HOLLINGWORTH PC

Steel Division 2

Eugen Systems' sequel is a WW2 RTS inside a turn-based wargame

DEVELOPER EUGEN SYSTEMS • **PUBLISHER** IN-HOUSE • **DUE** TBA
www.steeldivision2.com

Steel Division 2 doesn't just put a single division under your control. It gives you command of an entire army. Set during Operation Bagration, the World War 2 Soviet campaign, the battles are connected by huge campaign maps. It's an RTS housed inside a turn-based wargame, with everything recreated on a 1:1 scale, from the size of the tanks to the maps.

One minute you'll be commanding tens of thousands across 150x100km warzones, the next you'll be so close to the action that you'll see tank treads churning up dirt as they charge towards the enemy.

Eugen Systems' game director, Alexis Le Dressay, sends in columns of Soviet vehicles, clogging the arteries that flow into Minsk. They are on their way to liberate the city, but only if they can smash through the entrenched Germans. This is all taking place on one of the campaign maps, as preparations are made to march west. The Soviets have around 40,000 troops and 1,000 tanks, while the Germans have a quarter of that.

What might have been a single battle in Steel Division: Normandy 44 is drawn out into a larger conflict. Taking Minsk means finding a way to pierce the German line, pushing forward through villages and crossings to reach the city. It's a fight that will take multiple days, spread out across a map full of player-defined objectives.

"We wanted to add value to the solo campaign," says Le Dressay. "We wanted to make sure that the battles you fight are dependent on the higher level stuff." On the campaign map, you manage the entire army, handle troop movements, and deal with supply problems, with each action having a tangible impact on the battles.

A breakthrough point is selected on the map, highlighting the nearest battalions. Five can contribute to the battle, but not all necessarily at the same time. Steel Division 2's units get assigned phases that limit when they can be brought into the fray. In the campaign, the phase is determined by how close the battalion is to the action.

"Phase A means they are just near the battlefield, so they can be at your disposal at the very beginning," explains Le Dressay. "Phase B means they will need one hour to get to the battlefield, and Phase C means they will need two hours. Basically the combat that we're simulating is about three hours of fighting."

PICKING TEAMS

That's around 30 to 40 minutes of real-time fighting per battle, depending on how the speed controls are used. In solo games, the speed of the action can be tweaked, giving you more time to order your units or sit back and watch it unfold. And if you need to think about your next move, you can pause the battle.

There are quite a few battalions near the targeted area on the German line, but they're not exactly an elite fighting force. While Steel Division tasked players with building the best groups, the size of Steel Division 2's campaign maps means that there are going to be occasions where you have to make the best of a bad situation – even if that means relying on the poorly-armed, roll-up smoking partisans.

The Soviets throw everything into Phase A. The hope is that it will be a quick strike that's able to punch through the German

> "You'll be so close to the action that you'll see tank treads churning up dirt..."

> Thousands of troops need to be sent all over the battlefield.

line and allow the Soviets to pour out of the leak. Instead of fighting manually, the battle is autoresolved — the whole game can be played this way — and it's left up to the battle report to tell the sad, sad story of the Soviet defeat. Phase A actually went well, but then the enemy brought in more troops during Phase B, and again during Phase C, leaving the Soviets in a bit of trouble.

The dispirited Soviet attackers end the battle out of moves and staggered, meaning that they'll be overrun if engaged by the enemy. Reinforcements will need to be moved from elsewhere to protect them. How far battalions can move within a turn — simulating half of the day — is determined by both their movement value and the terrain. Recon units can travel further than big tanks, for instance, while all units benefit from using roads.

"At every turn, you'll be managing every battalion displayed on the map," says Pierre-Yves Navetat, Eugen's communications manager. "It's a huge strategy game, but if you want, you can play it just like a classic turn-based strategy game. We have lots of battalions to manage at every turn, so there's going to be a lot of content if you do. It's like a new game within the game."

The campaign map is certainly busy, overflowing with units and targets. Thousands of troops need to be sent all over the battlefield, necessitating a network of HQs and supply depots. Eugen is essentially building an operational wargame. Sadly, the demo didn't venture far into the world of logistics and supply chains, so it's hard to tell if it will be able to support the entire game on its own.

HUNTING TIGERS

Another breakthrough is attempted, but at a different location and with a beefier force. This time we take manual control of the RTS portion of Steel Division 2, homing in on the conflict, leaving the massive campaign map for a still-very-large 3x3km battlefield. It's been a day since the failed attempt, which has given the Germans enough time to bring their Tigers up to the front line. If the Soviets had engaged the day before, there would have been fewer German defenders.

The bucolic battlefields of Belarus don't look too different from their Norman counterparts. It's green and there are a lot of trees. It's striking, of course, and Eugen still makes some of the prettiest (if a bit utilitarian) strategy games. The terrain is varied, however, with hills and plateaus offering additional complexity and more uses for recon units. There are routes only infantry can take, too. You won't see tanks trundling through marshland, for instance.

Zooming in close, it's clear that Eugen's obsession with tiny details persists. Even though you'll spend most of the game high above the firefights and explosions, every unit looks extremely authentic. You can get a better look at them in the armory, which serves as both a museum and a research tool, helping you pick the right units for skirmish and multiplayer battles.

With larger maps, the engagement distance has been increased significantly. One of the Soviet tanks slowly tracks its prey like a big game hunter. A shell is loaded, and after a moment of anticipation it's propelled towards the enemy vehicle, far across the fields, smacking into its chassis. Throughout the battle, imposing heavy tanks exchange shots with foes all over the map, across farms and villages, never getting close to one another, but frequently landing devastating strikes.

"We wanted to make it so that when you're with a unit, you have that feeling of being there on the battlefield," Le Dressay says. "Something we didn't do properly with the first Steel Division was the size of engagement. It was a little bit too short, so we wanted to make it more realistic."

In skirmishes and multiplayer, where you can create specialized unit decks, the range changes could have an even bigger effect. "In Steel Division, it was harder to specialize with artillery because it wasn't able to shoot all over the map," says Le Dressay. "There were some limitations. We've changed how it works now; it's really powerful and able to fire anywhere, basically. And in the Eastern Front, we've got heavy tanks on both sides, which really changes things. It gives you more elements to play with."

With Steel Division 2, Le Dressay says he doesn't want to cut out parts of the original, or even to change much. His goal is to add to it, to move it forward. "We tried to bring a new vision to the game, but we don't want to make a revolution." Even though there's this whole new strategic layer sitting above the RTS fights, the game should still work the way you expect if you're a returning player.

If all you want is more RTS battles, there are 25 new maps, 18 new divisions, and modes that let you dive straight into the action. The campaigns are shaping up to be the real draw, however. Steel Division was great, but the mission objectives were restrictive and the campaign was just a list of fights. With Steel Division 2's Operation Bagration comes the promise of agency, emergent conflicts, and the ability to lose a battle, but still win the war — everything the last game was missing.

FRASER BROWN PC

We'll try to liberate you next time, Minsk.

Threats don't only come from the ground.

It's lovely here when the AA guns stop roaring.

Perhaps not the best hiding spot for a tank.

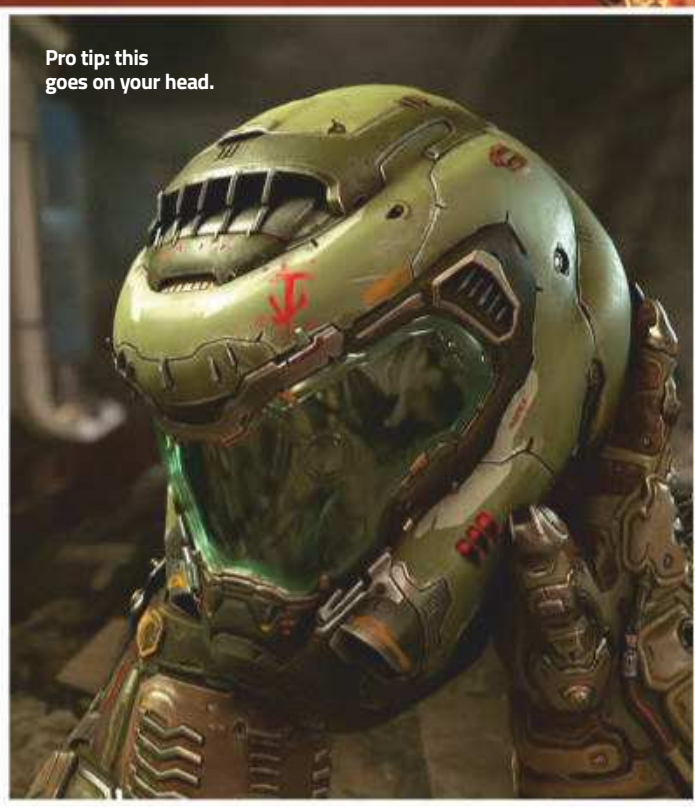
Doom Eternal

The hellish shooter returns with new toys and old friends

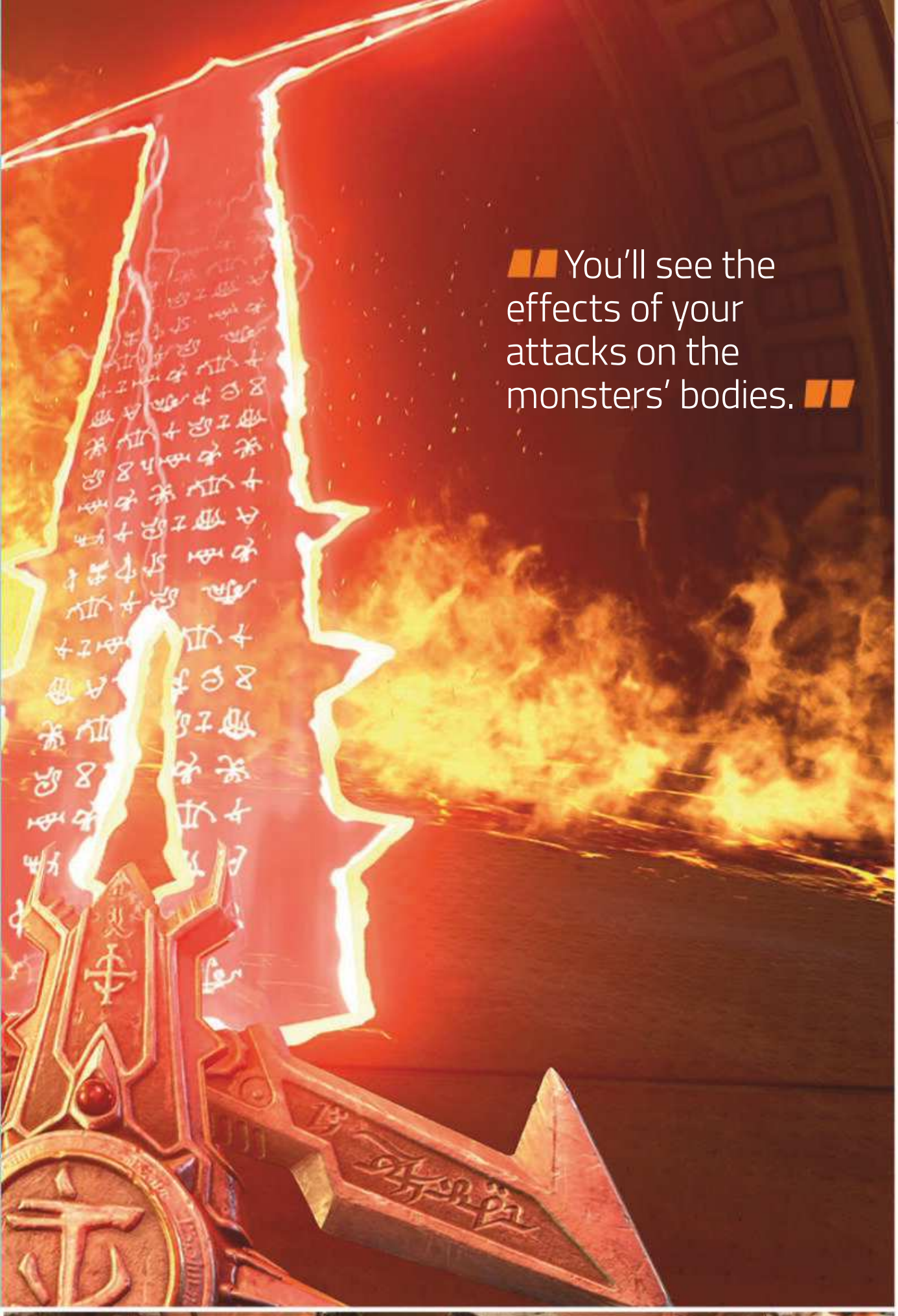
DEVELOPER ID SOFTWARE • **PUBLISHER** BETHESDA SOFTWORKS • **DUE** 2019
www.bethesda.net

It's called the 'Meat Hook': a pair of spikes that sit under the barrel of the shotgun. When fired, it rockets forward on a chain, attaching to demons and letting the player pull themselves to their target. The possibilities of new movement options and combo attacks are already tantalising in Doom Eternal, and it doesn't even come out until next year.

The sequel to id's Doom reboot was announced at E3 with a brief teaser but it was officially revealed in August at QuakeCon with long, unbroken minutes of carnage-filled in-game footage. Throughout the weekend of QuakeCon, at panels and interviews, id Software's executive producer Marty Stratton and creative director Hugo Martin laid out Eternal's new features like the Meat Hook and old friends such as the arch-vile, the powerful boss demon capable of resurrecting its dead



Pro tip: this goes on your head.



The mancubus is mancu-back. Hi there, how are you?.

comrades, who was unseen in 2016's Doom but dramatically teased at the end of Doom Eternal's QuakeCon footage. We saw concept art of new locations as well, because not only are we going back to hell in 2019, hell is coming back to Earth.

HOOKED

Among the new toys and abilities in Doom Eternal is a retractable knife mounted on the Doom Slayer's left wrist, shown in the game footage cutting demon heads in half and plucking giant eyeballs from pain elementals. Players will carry a massive ballista that fires high-damage bolts, and will be armed with a shoulder-mounted flamethrower that can cook demons (hands-free) who will drop extra armour shards when they're killed while on fire. There's also a new dash ability, granting the player sudden bursts of speed to dodge attacks or close in for a kill.

The Meat Hook is probably the most exciting new tool, and while it might conjure up thoughts of attaching yourself to spires and ledges and swinging around hell like Spider-Man or Rico Rodriguez, it's not quite that liberating. As much as it promises a new type of movement for Doom, this grappling hook also comes with limitations: you can only attach the hook to living demons, not architecture.

"You have to put limitations on the player otherwise you give them nothing to master," Hugo Martin tells a crowd of Doom fans during a QuakeCon panel.

"The restraint part is super important to us. In general, they say that the best parts of a piece of art is the thing that the artist left out, because they tend to enhance the things that are there. So, with a lot of these systems, the fact that we don't let you attach to everything, or that dash isn't instantly rechargeable – you can't spam dash – there's what the feature does, and where it stops.

"It's very challenging when we're discussing these things internally, because why wouldn't that Meat Hook attach to everything? Or why wouldn't you just dash nonstop? But again, we feel like that gap there is where player engagement exists."

MASS DESTRUCTION

In the original Doom games, the player could see themselves taking damage not just by glancing at their health percentage displayed in the UI but by looking at the portrait of Doomguy's face: the more damage the player took, the more bloody and miserable the space marine's angry mug appeared. It took a couple of decades, but in Doom Eternal the player will finally get to return the favour with a system Martin calls "destructible demons". While you're blasting, punching and burning demons, you'll see the effects of

your attacks on the monsters' bodies. Their flesh will tear, blood will flow, features will degrade, they'll lose limbs, and their armour will be peeled away.

"It is cosmetic, it's purely visual flair, but it also has – gameplay implications aside – tremendous impact on the feel of the game," Martin tells me during an interview. "Huge. So much so that when you play Doom 2016 and it's not there, it's really hard to play it.

"Because it's like, now I'm used to pulling out my [heavy assault rifle] and shooting that giant fat mancubus and just shredding him, and turning him into a corpse before he dies. He looks like a zombie coming at me. And then in [Doom 2016] you just can shoot him to high heaven and nothing happens, you know, because it's like any other videogame. We feel like it has such an impact on the power of the weapons, the power of the player, it feels amazing."

In some cases, wounded demons will act differently than healthy ones, because your attacks can disable their primary weapons. The mancubus, for example, has a tank on its back, and if damaged it may render his flamethrowers inoperable. "He'd still be able to attack and stuff like that, but you would alter the effectiveness of his attacks," says Martin.

"At that point he'd have to start to rely on his secondary attack, which – in the case of the arachnotron – he has missiles that are like these little grenades that he pops out of little compartments on his side. He's got a pretty good melee swipe, so he's capable of doing some pretty cool melee stuff. We think that stuff is really strong. We want the AI, certain chess pieces, to command your attention, you know what I mean? And ask a bit more of you as the player."

Not all demons will work that way, however. They'll all get shredded by your attacks, but "it's not a hard and fast rule for us that every heavy, for example, has to have a piece to him that you could blow off to affect his attacks", Martin says. "It's mostly if the opportunity presents itself and it feels intuitive. We don't want to crowbar that stuff in."

Another new twist will arrive as a Doom Eternal multiplayer feature, called Invasions. Players will be able to enter one another's campaigns, playing as a demonic hellspawn, and hunt down the Doom Slayer. These invasions can be one-on-one, or players can form a party and hunt in groups.

"Invasion is only one of the ways that we're making the whole Doom gameplay experience social," says Marty Stratton. "One of our goals right off the bat was to make that Doom experience that people love a social one, let them do it with their friends. So we're also building a PvP component internally that is also very, very Doom, very aligned with the Doom combat dance."

> "We're not just making a Doom game anymore, we're building a Doom Universe."

THE LORE OF GORE

"We're not just making a Doom game anymore," says Stratton during the Doom Eternal reveal, "we're building a Doom universe." Doom isn't exactly known for story – 2016's Doom had you killing demons within moments of starting up the game, and it never slowed down – but Eternal sounds like it will be crammed with bits of lore for those players interested in collecting and unravelling it. And for those who want to just shoot big guns at bigger monsters, Martin said, the story won't get in the way: players won't be pinned in a corner and forced to listen to a character unload long gouts of exposition.

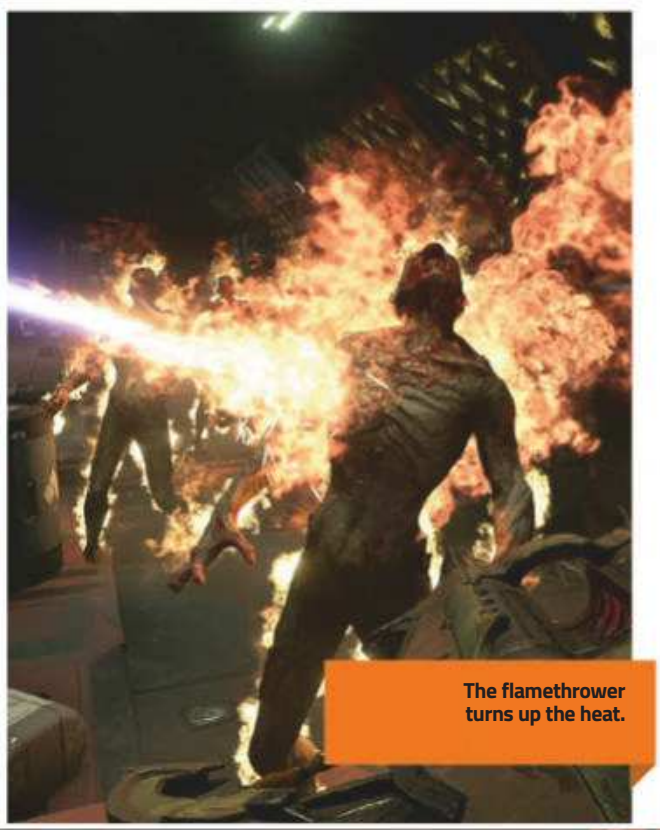
That's a relief, because while swinging around levels attached to demons with the Meat Hook, with a new dash ability that makes the already fleet-footed Doom Slayer even faster, and while constantly looking over your shoulder for invading player-controlled demons, who really wants to put on the brakes for storytime in Doom Eternal anyway? "If I want to tell you a really complex story about characters that have really complex personalities," Martin says, "this high story with a bunch of people and all this stuff going on… it doesn't mean that I have to bore the shit out of you in the process.

"How much story you experience in Doom Eternal will be up to you. There will be a baseline everyone will get if they just play the game. But if you keep digging in the corners and keep digging in the corners, and putting everything together, you will have a larger and larger and larger story that you'll begin to expose. A huge one, actually. There's like a massive – if I could take a picture of what our story wall looks like, it's tremendous. I mean, there's a whole timeline for events that go way, way back. And it'll be really fun for fans to see how much of it they can put together.

"The clues are there," Martin says. "We're not trying to be clever about this."

CHRIS LIVINGSTON

Demons arrive on Earth to speed up global warming.



The flamethrower turns up the heat.

Shred your enemies, piece by piece.

Up, up, and AWAY!

The way aircraft carriers fight – and fly – in World of Warships is getting a massive overhaul. We've played the updated game and it's... interesting.

Well, let's be pretty up front - if you're the kind of player who's always wanted World of Warships' aircraft carriers to be a little more action packed, the massive update hitting CVs in the next few months is going to be right up your alley. The new gameplay is designed to present truly cinematic carrier battles, and to bring the carrier game into line with the 'all-action' ethos of the rest of the game.

If, however, you're like me, and you really enjoyed the more strategic aspect of carrier battles in the game as it currently stands... Well, you're just a little screwed. That RTS-style, top-down view of the game, and the ability to control multiple squadrons of multiple types of aircraft, will be going the way of the Dodo.

That's going to be a very hard sell to some players - and Wargaming knows this.

"Well it's going to be hard, because if you like the RTS style of the gameplay... that is gone," says Artur Plociennik, Executive Producer on Wargaming's naval not-quite-sim, World of Warships. "The top down, slower game, multiple squadrons... that's not the thing we're doing, so selling players the new mechanics is going to be tough."

"Because if you're a good player now," he adds, "it's going to change a lot - you're going to have limited salvos, less planes in the air, and you're not going to be seeing the big picture like you're used to. You're going to go from being able to win the game by yourself to being just one part of each game."

Which is part of the reason these sweeping changes are being worked on, ahead of rolling out by - hopefully - the end of the year. Wargaming's always built itself on being very open to feedback, and tracking in-game statistics with a serious eye for detail, and that's driving the carrier game's new direction. I'm bit of a carrier fan (can you guess?), so I was surprised to hear that only perhaps three percent of players play CVs; that low number of players, combined with a widely different level of player skill within the class, has made the big ships and their lethal aircraft very difficult to balance. On the one hand, a good CV player can swing the tide of a battle by themselves, and walk away with top spot in that match's rankings, while a bad one can do the opposite. Which, when you take into account the kind of abuse a poor round with a CV can get from your fleet-mates, I guess makes sense.

So what's replacing it?

A WHOLE NEW WAY TO FLY...

Previous carrier battles began with launching every bird you had, and then controlling them RTS-style around the map - it felt very much like the scenes you see in movies, with aircraft controllers pushing blocks of wood around a large map, listening to radio reports and vectoring pilots to the spot where they're most needed. In the new mode of play, when you launch a squadron, that's the one you control, and you control it in a third-person, over the wing view using the traditional WASD keys. You can speed up, or call in fighter cover for a limited time, but otherwise, it's all about controlling that one squadron onto your target.

It's a much more intimate way to play with carriers - in fact, you're really more of a squadron commander than a carrier captain in this mode. Each aircraft is individually modelled in terms of damage, and when you move into to actually attack an enemy ship, up to three planes peel off for the actual attack run. So, if you're running a squadron of torpedo bombers, they dive low to the deck, and you can control their approach and the release of their payloads. Timing is everything. Like in the current game, it's all about striking where the enemy will be, leading the target and trying to anticipate where they'll turn or how fast they'll be. Since release is manual, you'll also need to keep note of the distance your torps need to travel before they activate, too - release too late and you'll be more accurate, but your fish won't be able to detonate on target.

As planes release their payloads, they leave the squadron, heading back to the carrier. With high-tier CVs, and large, 12-plane squadrons, this can be quite thrilling - it's entirely possible to line up a long, winding attack run, planes swooping out of the sky, attacking one ship, while the squadron then moves on to another target. With only three aircraft in each attack wing, you might not be

> "Since release is manual, you'll also need to keep note of the distance your torps need to travel before they activate...."

The last craft of a squadron approaching their target - but they're already damaged...

Three aircraft break off from their squadron to make a rocket run.
You could pull the trigger and release your load in a wide spread now...

Still looks like a carrier from the outside - but the gameplay is a whole new furball.

A squadron of bombers peels away from its target, down three craft who are returning to the carrier.

able to get those massive first strike kills, but you can spread that damage out a lot more.

And if you can peel off on an attack run, flack and machine gun fire bursting around you, without saying to yourself "Stay on target... stay... on... target" in the voice of Red Leader, you're a better person than I.

THOSE NOT SO FRIENDLY SKIES

There's also a new aircraft type, an attack fighter loaded with racks of rockets. They don't do a lot of damage, but they've a load of splash damage and cover a decent area; they're much more likely to hit, making them ideal for finishing off damaged ships. And bombers are still the go to for causing critical damage and fires.

It's a profound new direction for the game, and not just in the way CVs play. With only two carriers in each battle - that's not changed - there's only ever going to be four squadrons in play at any one time, and fighters, while still powerful, are one-shot defensive measures much like fighters or recon craft on cruisers and battleships. It makes the sky much less chaotic.

"It's no longer like the Battle of Midway," Artur admits, with a dozen or more squadrons dueling and tracking enemy ships and squadrons. Even if you're not a CV player, the game is going to be different, because now, every squadron you face is going to be piloted onto target, and so a whole different set of skills is going to come into play, on all sides of the equation. It's just not going to be quite as epic - but, hopefully, nor will it be quite so frustrating.

At the moment, though, it's still a work in progress, and our hands on time was limited to a player-driven CV on each side, with the rest of the roster filled by bots. The code we played is far from final, but after a couple of sessions spread over two days, I was beginning to get the hang of it.

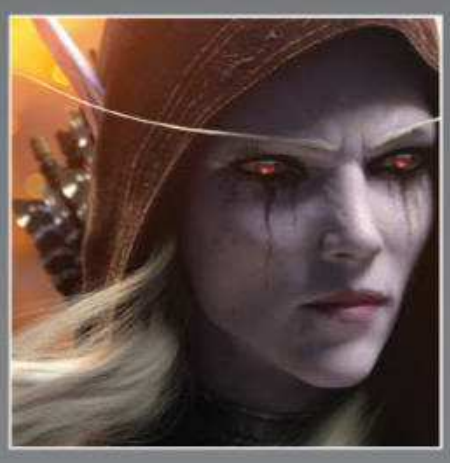
All that said, and as much as I dislike judging any game on early code, I can't say that I'm entirely sanguine about the changes - but then, I am part of that apparently very small minority that likes the current carrier game, and is so very hard to balance for. Thankfully, if I'm not totally sold on the new systems by the time they release, Wargaming's promised players in-game compensation for those wanting to opt out of their hard-earned carriers, so there's that.

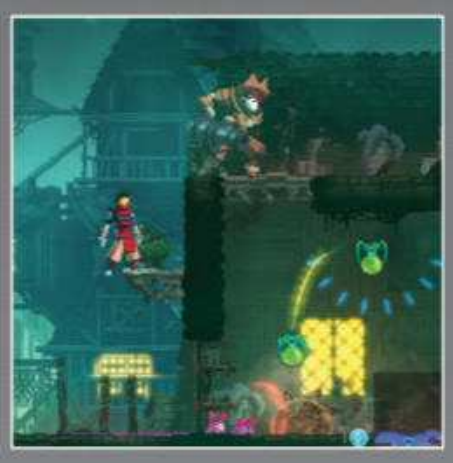
But regardless of what I think, if I've learnt one thing about Wargaming in my time interviewing its devs, playing its games, and learning how the company does business, it's that the company really does know what it's doing.

DAVID HOLLINGWORTH PC

Games 273

YOUR GUIDE TO PC GAMES





Every time I try to get out...

... Blizzard pulls me back in!

Did you know that the Godfather trilogy is so rich and vast that you can find a quote from it for almost every occasion? True story - if you've not watched it, give it a go. You'll even learn where that headline comes from...

Also true - I am not a strongwilled person, and when Blizzard unveiled its first cinematic trailer for Battle for Azeroth earlier this year, I knew it would get me back. And it has. In spades.

What I did not realise was that it wouldn't be some kind of reflexive behaviour - rather, it's because it is actually a damn fine expansion. Not perfect, but this is keeping me interested well beyond hitting level cap.

Which hasn't happened for while...

David Hollingworth
Editor

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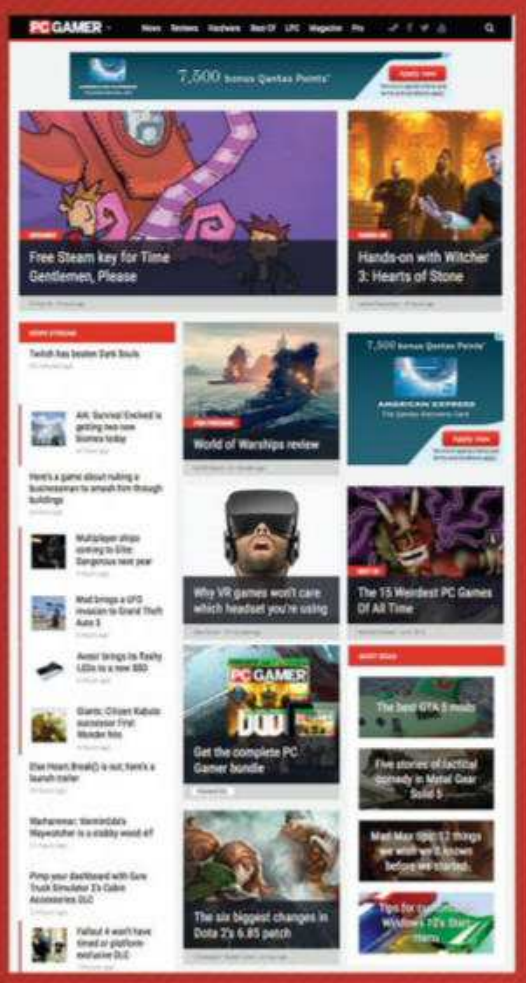
1

10

SCORING SYSTEM | PCPP scores its games on a 1 to 10 scale. The higher, the better – though 10 is by no means a "perfect" game. We're not convinced such a thing exists, so consider a 10 a masterpiece of PC gaming, despite its inevitable flaws. A 5 is a decidedly average game; one that doesn't excel in any particular area, without being an affront to our senses – the ultimate in mediocrity. Below this, you'll start to find the games our reviewers suffered an aneurysm getting through; above it, the titles truly worth your time and money. And remember: a score is only a vague indication of quality. Always read the full review for the definitive opinion!

SMARTER COOKIES ENABLED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World of Warcraft: Battle for Azeroth

With two gorgeous new continents to explore, World of Warcraft: Battle for Azeroth is a welcome departure from the cataclysmic drama of Legion.

DEVELOPER BLIZZARD ENTERTAINMENT • **PUBLISHER** IN-HOUSE
www.battle.net

When Rodrigo, the Freehold flight master, offers me a sum of gold to get revenge on the pirates that have been bullying him, I can't refuse. Rodrigo asks me to fly around on one of his giant parrots and drop bombs on the brigands. I soon realise Rodrigo wasn't being literal. At the push of a button, a green turd erupts from the parrot's rear and splats on a pirate. Far below me, I hear a scream, "Argh, my eye!"

Welcome to World of Warcraft, a place where I'm shitting on people one minute and an hour later slaughtering civilians who have become infected by Lovecraftian brain slugs. Don't get me wrong, though, I love that WoW flashes between serious and goofy. And Battle for Azeroth embraces that tonal duality with conviction.

BLOOD IN THE WATER

During the finale of Legion, the previous expansion, the titan Sargeras stabbed his continent-sized sword into the planet, wounding it so deeply that its crystallised blood began bleeding to the surface. Without a common enemy to unite them, the Horde and Alliance are at each other's throats and Azeroth's blood, called Azerite, turns out to be the perfect weapon. After an explosive pre-expansion event that spanned two cataclysmic battles, the warring factions set sail to find allies in their war.

For the Alliance, that means trying to repair its relationship with the human maritime superpower of Kul Tiras. The Horde, meanwhile, ventures to the lost continent of Zandalar to treat with the ancient but powerful Zandalari troll empire. Giving each faction a separate continent to level on massively increases the scope of this expansion. Now that I've taken the time to level both a Horde and Alliance character to the new cap of 120, Battle for Azeroth almost feels like two expansions.

Kul Tiras and Zanadalar are some of the most exquisitely designed locales in Warcraft's history and the high point of Battle for Azeroth so far. After Legion's Broken Isles, which felt like a disjointed greatest hits of Warcraft lore, I adore how consistent yet diverse each of the new islands is.

Take Kul Tiras, for example. This maritime island is cut up into three zones that feel like organic extensions of one another, while still being individually identifiable and memorable. The bleak tundras of Tiragarde Sound house the capital city of Boralus, torn by political infighting. Drustvar, to the west, is a mountain range surrounded by spooky forests where villages are slowly succumbing to the nefarious magics of a witch coven. To the north, though, is Stormsong Valley, the verdant breadbasket of Kul Tiras where Cthulhuesque sea priests practice their rites in the shadow of a kraken carved out of a mountain face.

By contrast, the Horde levelling continent of Zanadalar couldn't be more different in its aesthetic. It's a lush jungle full of towering spirit dinosaurs, golden Aztec cities and swamp-dwelling blood trolls trying to free their blood god from an ancient underground prison. Though the zones are so different, each is wonderful in its own way. In particular, I love the swamps of Nazmir in Zandalar, where there's no shortage of haunting vistas like the corpse of a massive tortoise being gruesomely hollowed out by blood trolls, or a terrifying blood red moon that hangs just above a creepy temple for the dead. Nazmir is dark and sinister and I can't get enough of it.

World of Warcraft's strength has always been in building fantastical landscapes like Kul Tiras and Zandalar, but the characters that populate these worlds are just as well realised. In the absence of an immediate world-ending threat, Battle for Azeroth compensates by putting the internal struggles of its nonplayer heroes in the spotlight. It's a gamble that works. Both sides have great characters, but I love the story of Jaina Proudmoore, who returns to centre stage as a strong but emotionally wounded person haunted by her past decisions. Alliance players will embark on a long quest to reunite Jaina with her estranged mother and the conclusion is

WHY SHOULD I CARE?

+ You found Legion too grim

+ You want ALL TEH EPIC LEWTS

+ You're still addicted to the grind - like us.

ARMOUR ANATOMY

HOW AZERITE ARMOR WORKS WITH A DEMON HUNTER

1. Three concentric rings Each require a higher Heart of Azeroth level to unlock. You can only choose one trait from each ring.

2. Blightborne Infusion Spells and abilities have a chance to draw a Wandering Soul that increases your critical strike for a period of time.

3. Gaping Maw Using Soul Cleave grants you a shield that absorbs a bit of damage, increased by up to 100% based on missing health.

4. Unbound Chaos Your inner demon slams into nearby enemies at the end of your Fel Rush dealing chaos damage.

5. Soulmonger Consuming a soul fragment shields you for three seconds.

6. Azerite Fortification When stunned, immobilised, or knocked back, you heal for a set amount of damage.

7. Azerite Empowered Increases the level of this item by five.

surprisingly poignant.

QUEST FOR GLORY

Though the zones are new, how I explore them hasn't changed. Levelling a character is a familiar routine of heading to a new area and picking up quests that lead to even more quests. But by further building upon Legion and Warlords of Draenor's excellent quest design, Battle for Azeroth is far from a grind.

While the actual objective of quests might be mundane in the grand scheme of things (like dropping bird turds on unsuspecting heads), there's a great deal of variety in each quest, and better voice acted dialogue and cutscenes keep the whole experience trucking along at a pleasant rhythm. It's mindless fun, sure, but it's hard to care because few quests are ever the same. One minute I'll be infiltrating blood troll camps to poison their domesticated bats and the next I'm controlling a wickerman colossus to singlehandedly devastate an entire army of stone soldiers. There's not a real challenge to any of these activities but the variety keeps things interesting. Each zone's quests slowly weave together into an overarching story that can be surprisingly dramatic – especially when taking the time to read every bit of dialogue offered by quest givers.

It's good Battle for Azeroth's quests are fun to complete on their own because, so far, the rewards for levelling up new characters have been one of Battle for Azeroth's biggest weaknesses. While the design of the new armour and weapons looks great, the way they affect abilities is underwhelming. Unlike previous expansions, Battle for Azeroth doesn't add any new abilities or talents to classes as they level up to 120. It makes earning that coveted next level feel pointless.

Character progression is instead tied to the Heart of Azeroth, a fabled necklace that players are given early on in the expansion. This necklace absorbs

"Battle for Azeroth doesn't add any new abilities or talents to classes as they level up to 120."

Azerite, heal ng the planet's wounds while also levelling up and becoming more powerful in the process. Reaching certain levels in the necklace unlocks the latent powers of new Azerite Armor, special pieces of gear that can be earned through a variety of tasks – the most powerful of which is saved for dungeons and raids. Each piece of Azerite Armor has three concentric rings that contain a choice of various ability-enhancing traits. To unlock each ring, my Heart of Azeroth has to first reach a certain level and then I can choose which trait I want to permanently unlock.

It's a cool idea that is clearly inspired by Legion's Artifact Weapons, which also required farming a resource to unlock traits that changed how certain abilities worked. The difference here is that, comparably, Azerite Armor is boring. During my race to level 120, every piece I encountered would typically offer one of two choices and neither was exciting.

Higher-end Azerite Armor from dungeons and raids offer more traits with more powerful effects, but while levell ng my tank I was usually choosing between a temporary shield or a bit of extra damage – neither of which really improves how well I fight. The good news is that unlike Legion's abysmal Legendary items, a painful system driven by RNG that Blizzard spent years trying to fix, Azerite Armor is structurally sound. It's not as needlessly complex and makes switching class specialisations less of a chore because I'm not having to grind for multiple weapons. If Azerite Armor just had more exciting traits it'd be a lot more rewarding.

Because Artifact Weapons and all their powerful abilities were retired at the end of Legion, my Demon Hunter actually feels weaker in Battle for Azeroth and Azerite Armor does a piss poor job of filling that weapon-shaped hole. And gods help you if you're playing an enhancement shaman or one of the class specialisations that didn't receive a much-needed redesign before Battle for Azeroth launched. So many of Legion's powerful systems are now stripped away, leaving certain class

LATE TO THE PARTY

NEW RACES, NEW FACES

ALLIANCE
DARK IRON DWARF
These bad-tempered dwarves have eyes that glow with fiery fury. Years ago they tried to stage a coup in Ironforge.

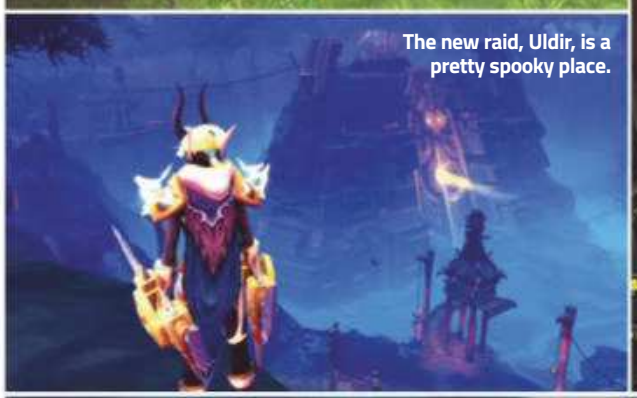
LIGHTFORGED DRAENEI
These ethereal draenei underwent a ritual that infused their body with holy light to help them battle the Burning Legion.

VOID ELF
Most people who try and harness the corruptive magic of the Void end up driven to madness, but these shadowy elves managed it.

HORDE
MAG'HAR ORC
This shamanistic tribe of orcs has long been isolated from the Horde and personal honour is an important part of its culture.

HIGHMOUNTAIN TAUREN
These tauren are descended from an ancient war hero called Tuln and have an affinity for the spirits of earth, river and sky.

NIGHTBORNE
The nightborne live in the ancient elven city of Suramar and have been isolated from the rest of Azeroth for over 10,000 years.

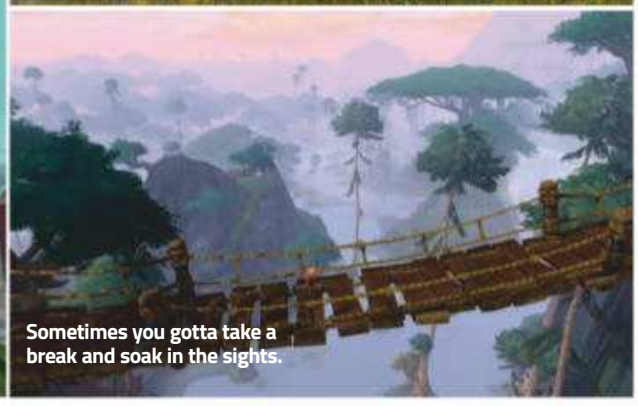


The new raid, Uldir, is a pretty spooky place.

Azerite Armor is cool but, boy, those traits are boring.

In-game cinematics have really jumped up in quality.

Zuldazar is an ancient, winding city full of secrets.



Sometimes you gotta take a break and soak in the sights.

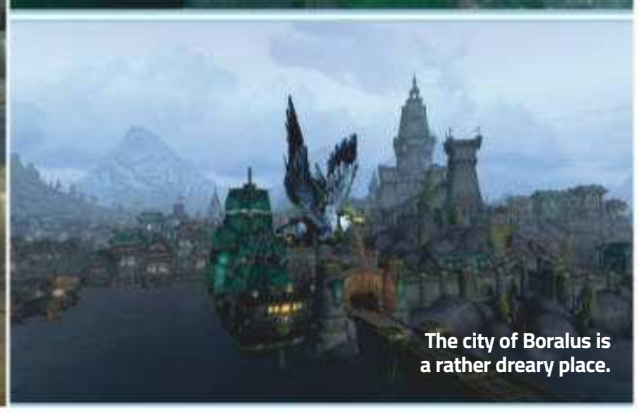
Zandalar is an island full of towering dinos.

Yes, blood trolls are as evil as they sound.

Quests
Storm's Vengeance
- 0/1 Abyssal Melody destroyed
Make it Mildenhall
- Speak with Ancel Mildenhall at the Mildenhall Meadery
The Boys Are Just Packed!
- Find Sergeant Calvin in Brennadam Square
Tol Dagor: The Ashvane Overseer
- 0/1 Tol Dagor Master Key
- 0/1 Overseer Korgus slain
The Great Sea Scrolls
- 8/12 Pilgrimage Scroll
Great storms upon the sea, heed my call!
Thundering Blast
tes completed.
gained: 19195.
Gold, 20 Silver.
Friendly with Storm's Wake.
torm completed.
gained: 19195.
Gold, 20 Silver.
ew of Madness completed.
gained: 23980.
Gold, 40 Silver.
ted: Storm's Vengeance
says: Step into the storm so we may finish this.

Sea priests infuse my character with powerful lightning magic.

Battle for Azeroth's story is definitely a lot more emotional.



The city of Boralus is a rather dreary place.

MEET THE HEROES

THE MAIN STORY FOCUSES ON TWO PRINCESSES STRUGGLING TO UNITE THEIR KINGDOMS

PRINCESS TALANJI

Daughter of the god-king Rastakhan, Princess Talanji is a powerful troll mystic who calls upon Zandalari nature spirits (called Loa) to assist her during times of trouble. Believing her father to be ignorant to his kingdom's troubles, she sets out on her own to thwart the blood trolls that have been invading from the swamps of Nazmir.

JAINA PROUDMOORE

Once an advocate for peace, this powerful sorceress and heir to the Kul Tiran throne is haunted by the death of her father and destruction of her city at the hands of the Horde. She returns to her homeland of Kul Tiras in hopes of repairing its damaged relationship with the Alliance but is confronted by a mother who sentences her to death.

specialisations gutted and no amount of Azerite Armor is going to help. It's a problem that will hopefully be fixed in a later update, but some of WoW's classes are in rough shape right now.

TO WAR

Fortunately, Battle for Azeroth doesn't need a carrot on a stick to keep me playing because all of the endgame activities are fun even without good rewards. Though the real meat of endgame like Mythic+ dungeons, raids and the new Warfronts aren't available until September, Battle for Azeroth is already shaping up to have one of the most varied endgames that WoW has ever had. There's just so much to do.

When I first hit level 120, I still had hours' worth of leftover quests and new endgame-specific missions that tied off dangling plot threads. But the area I had to adventure in effectively doubled because the other faction's continent becomes available to explore, fight and quest in. Legion's World Quest system makes a return, offering a daily rotation of time-sensitive quests scattered across all six zones with lucrative rewards and even more faction reputation. There are ten new dungeons to conquer, too, each one a gauntlet of memorable boss fights. In Freehold, for example, my party was entered into a fighting pit where we had to overcome several challenges including catching a greased-up pig and defeating a giant ogre named Sharkpuncher who – ayup – wields two sharks as weapons.

Crafting professions also received a much-needed update that makes them easier to get into without needless grinding. Now players can start crafting gear and items that are immediately useful, which is the impetus I needed to finally invest time into Warcraft's more relaxing pursuits. It's a shame, then, that, at least with professions that primarily make armour and weapons, the crafted options just aren't that useful compared to the loot I find in dungeons and, when it eventually releases, the new raid.

One new addition to the endgame roster of activities is Island Expeditions, the antithesis to the structured choreography of running dungeons and mastering specific strategies for each boss. This three-player mode takes you to one of seven islands populated by a random assortment of monsters and quests that each reward a small sum of Azerite. But here's the kicker: it's a race against another team of three players.

While there's a PvP version that pits you against actual human competitors, the normal version of Island Expeditions is against one of several AI teams with their own strategy and personality. These enemy soldiers are unlike anything I've seen in World of Warcraft before because they're actually intelligent. When challenged directly, they'll coordinate spells, target weak party members and even run away if the fight seems unfavourable. On higher difficulties, I frequently forget that I'm playing against AI opponents.

Whether I'm taking on a human or AI team, Island Expeditions are a blast because they do a remarkably good job of keeping the competition fierce. Charging the enemy head-on or keeping our distance were both viable strategies so long as we kept killing monsters for Azerite, but I like that adaptation is key to success, which feels like a nice reprieve from the repetition of dungeons. Each of the seven islands are highly dynamic and randomised, so even if I visit the same one twice it will be populated with completely different enemies and a different AI team.

CHANCE ENCOUNTER

During one expedition, Elemental Firelords appeared and opened a portal to their realm where a huge bounty of Azerite waited for whichever team could defeat the boss first. More than once, encounters like these turned into chaotic three-way battles as I desperately tried to fend off the enemy team. And because Island Expeditions still reward the losing team, the few times we were absolutely destroyed didn't feel like a waste of time.

Those wanting actual PvP can turn on Battle for Azeroth's brilliant War Mode, which replaces the old dedicated PvP system entirely. Now the option to PvP is just a button that places my character into an instance of the world populated with other characters who have also opted for PvP, turning Battle for Azeroth's zones into lively battlegrounds. It's sometimes frustrating being ambushed in the middle of a quest, but I love the way War Mode inspires me to coordinate with other players. Finally, I have a good reason to actually socialise with all the strangers playing alongside me rather than acting as if they don't exist. And after Horde players invaded a nearby town, I rallied a group of a dozen Alliance members to drive them out. It was thrilling to get into a fight that wasn't a scripted quest.

War Mode is supplemented by some fun ideas, like zeppelins that periodically fly overhead and drop supply crates for each side to battle over. Score enough kills and you'll be marked as an assassin and your location revealed, prompting other players to hunt you down for extra rewards.

World of Warcraft has always thrived on structured activities like dungeons and raids, but War Mode and Island Expeditions are wonderful complements to the usual routine. And once we have new raid and Mythic+ dungeons, which modify Battle for Azeroth's dungeons with unique challenges that rotate on a weekly basis, an already diverse endgame will get even more variety.

Battle for Azeroth is an expansion that proves I don't need an apocalyptic threat to inspire me to fight, I just need a vibrant world and characters to care about and fun new features to play around with. Battle for Azeroth has more than enough of those.

STEVEN MESSNER PC

VERDICT:

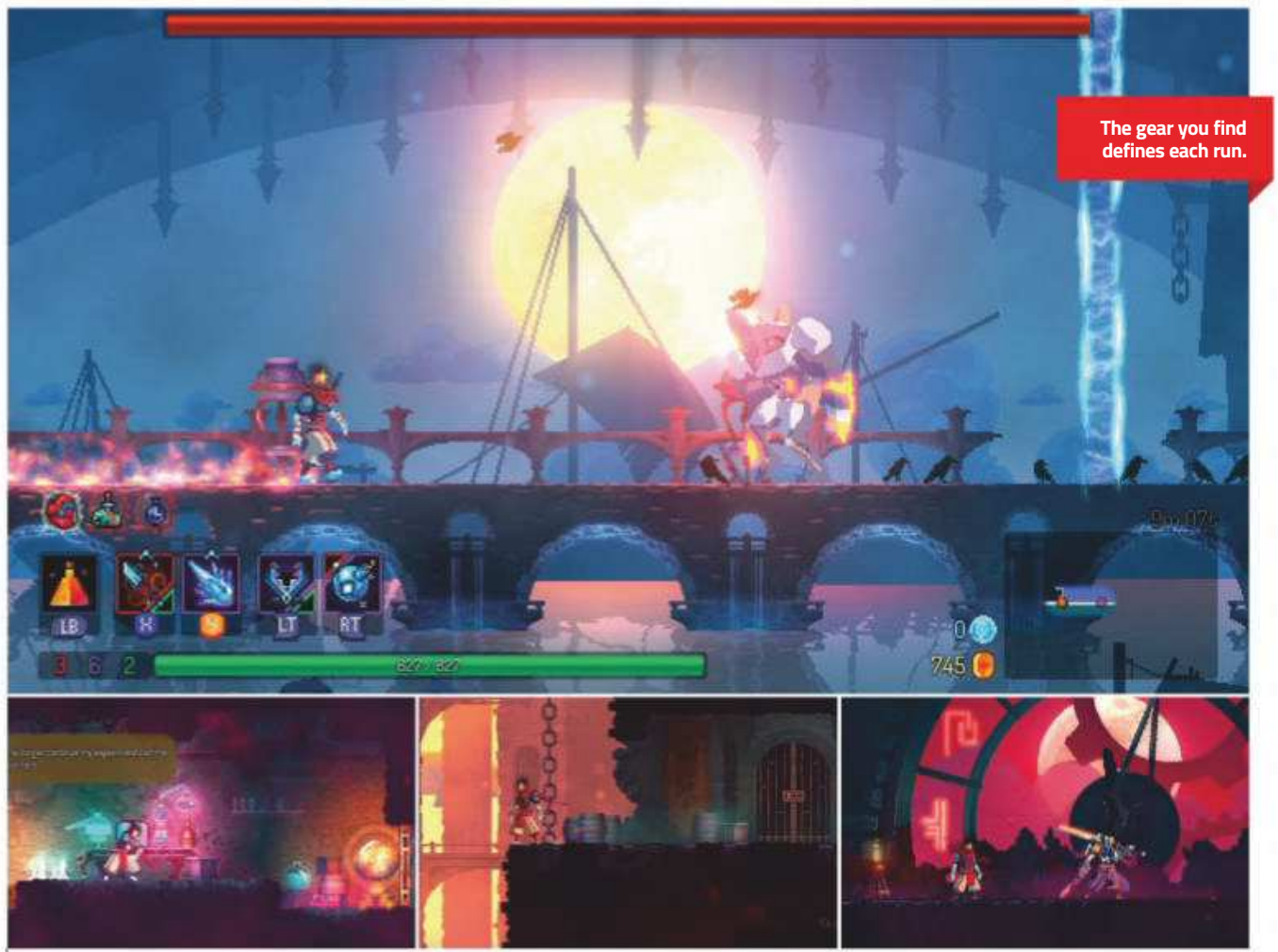
Even if its loot system is a bust, this is a vibrant expansion full of new locales, characters and stories to tell.

9

Dead Cells

Crashing castles

DEVELOPER MOTION TWIN • **PUBLISHER** IN-HOUSE • **PRICE** $US20
www.dead-cells.com



The gear you find defines each run.

Dead Cells has robust DNA. This is an action platformer with Castlevania's environments and gothic bestiary, wed to Dark Souls' exploration and sense of risk.

And it's gorgeous. Smooth animation, evocative pixel art, and gratifying effects cast Dead Cells in a good light from the off. Its moody fortresses and haunted villages are atmospheric but never drab, and each zone introduces a new splash of color to the game's palette.

These touches gild a superbly-executed movement and combat system. You have a double jump and a dodge roll that grants a vital window of invincibility. You can bust through doors to stun enemies with a satisfying crunch, and leap from chains to dodge projectiles and reach new areas.

You can carry two weapons and two items. The former range from swords to spears, bows, throwing daggers, and hammers, each with variants, special combos and the potential to drop in rarer forms with stacking effects. Items include grenades, traps, and turrets, with their use mitigated by a cooldown.

Your access to gear is gated by Dead Cells' progression system. As you play, you collect cells from fallen enemies. These can be spent on permanent upgrades—like more uses of your health-regenerating flask, or the ability to hold onto more of your gold after you die. Most importantly, you can invest cells in item blueprints. You'll find these as you explore and kill enemies, and once you've spent enough cells you unlock a new item which can be found in subsequent runs. When you die, you lose all the cells you're holding and are reset back to the start with your upgrades in place.

You'll earn a rush of upgrades at the start of the game, with the pace slowing as you get deeper. Unlike Metroidvania games, you're not wholly reliant on specific upgrades to progress: The ones you do need, like the teleport, you'll earn early on.

> "...being reset back to the start of the game every time you die makes it a slog to practice..."

The world itself is split up into zones, with each playing host to its own unique enemies and secrets. You're rewarded for both sticking around to try to garner as many rewards as possible from an area and for speeding ahead. Dead Cells' strength as a roguelike comes from the way it lets you choose the kind of run you'd like to embark on—levels are rearranged every time you die, but not to the extent that they become unrecognizable.

Dead Cells' punishing structure can cause grief. Its bosses are gratifying to overcome, but being reset back to the start of the game every time you die makes it a slog to practice against them. And when a good run goes south, it's heartbreaking.

Even so, perseverance has its rewards. When it all starts to come together, frustration fades, and your love affair with Dead Cells' phenomenal fundamentals can start all over again.
CHRIS THURSTEN PC

WHY SHOULD I CARE?

+ You're looking for a challenge
+ You love learning systems
+ Your friends think you're stubborn.

DEAD CERT:

DEATH ADVICE
STATS AND YOU
Scrolls let you upgrade one of three stats, but remember: the biggest health boosts come from improving your weakest attributes.

DAMAGE CONTROL
After you take damage, part of your health is highlighted in yellow. You can earn some of this health back by doing damage to enemies as quickly as possible.

GOOD TIMING
Early stages have doors that lock after a certain amount of time. These are a great source of cells—prioritize them when you're working on an important upgrade.

VERDICT:

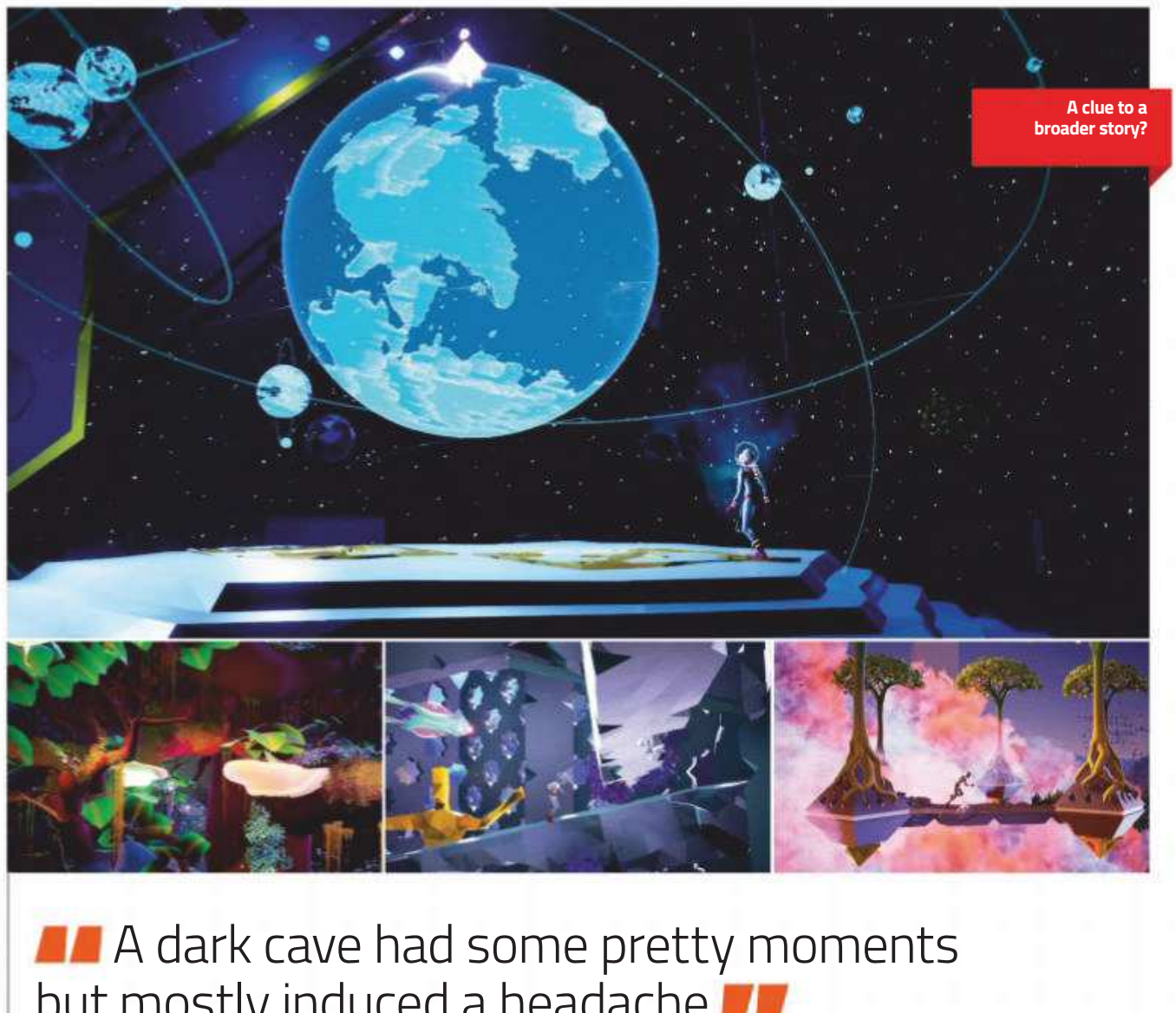
A stellar action platformer with gorgeous presentation and excellent combat. Punishing, but worth it.

9

Planet Alpha

Alien beauty fails to charm.

DEVELOPER PLANET ALPHA APS • **PUBLISHER** TEAM17
www.planetalpha-game.com



A clue to a broader story?

Planet Alpha opens with you, an elongated humanoid in a spacesuit, limping across a desert, eventually collapsing at the (surprisingly literal) mouth of a cave. One fade-to-black later and you're waking up, fully healed and ready to jump, run, crouch and drag your way through the alien landscape. As well as that side-scrolling platformer toolset you also have the ability to turn day to night and night to day.

Rather than putting you forward or backwards in time, this is used to manipulate your environment. Plants are particularly susceptible to changes in light, so full sunlight makes golden fungus unfurl to create new platforms, or prompts clumps of foliage expand to offer hiding places.

But although it has the potential to be an interesting project, supported by a pleasant low-poly art style, Planet Alpha quickly reveals a lack of depth and mechanical polish which combine to make playing a real chore.

Moving through the world was not a fun experience, especially during stealth segments. For example, I found it hard to tell with any degree of precision whether an enemy's laser would hit me while I was behind cover. That was because I couldn't reliably get a sense of their line of sight or which parts of the terrain were shielding me. Some sections were thus brimming with trial-and-error deaths, or getting killed when I thought I was behind a rock.

Relatedly, it wasn't always clear which plane an object was on. For example, I waited for a pause in a gigantic creature's foot stomping so I could safely pass only to realise it was part of a background layer and therefore I could ignore it completely.

In terms of the art, there are some cool touches. The backgrounds are visually interesting, particularly early on, and there's a nice moment involving a long-necked creature which seemed to be a nod to the original Jurassic Park movie. Later levels feel less visually interesting, though.

> "A dark cave had some pretty moments but mostly induced a headache"

Offering some variety are glowing orbs which transport you to dreamy, pocket universes populated with jumping puzzles. These are fine but uninteresting. In fact, the puzzles are generally fine, mostly unmemorable and occasionally frustrating, especially if they involve stealth.

The puzzles also don't take the day-night conceit anywhere remarkable. During a chase sequence the moonlit fungus platforms are needed so you can cross a gap. I started the chase in daylight, saw the need for night, changed time, and was killed by a robot before the fungus could bloom. I respawned with the night in place and finished it easily – kinda boring

Planet Alpha struggles on all counts, coming off as loose instead of tight, vague instead of purposeful, and dull instead of compelling.

PHILIPPA WARR PC

WHY SHOULD I CARE?

+ Since the dawn of time you have yearned to blot out the sun

+ Mediocrity is your jam

+ You love games that could have been great.

ALPHA ENEMIES

PATROLLING BOTS
You'll need to sneak past these grumps. If you alert them, hide in cover until their antennae go back to green.

PATROLLING ORBS
You can't alert these in the same way as the bots. The downside is that if you cross their beams you'll die.

LASERS
Some laser fire is there purely for atmosphere – it'll just sail past you for the most part, or destroy an object

FLIES
These are more of a beetle-y looking version of the patrolling bots. Just hide amongst the glowing eggs.

ROBOT
Often, the bigger foes you encounter are part of a solution to a puzzle. They can still definitely kill you, though.

VERDICT:

Despite an attractive veneer, Planet Alpha offers rote and shallow platforming.

5

Chasm

A challenging, polished and pigheadedly old-school Metroidvania.

DEVELOPER BIT KID, INC. • **PUBLISHER** IN-HOUSE • **PRICE** $US20
www.chasmgame.com

It seems like a simple job. Travel to a nearby town and rescue a few villagers who have gotten themselves lost in the local coal mine. But when your rookie knight arrives in the snowy hamlet of Karthas, he learns the true horror of what has happened. Something terrible has been awakened in those deep, cavernous mines—something evil—and it's a good thing the knight has brought his sword along with him.

Chasm is a side-scrolling platformer in the Metroid mould, with games such as Castlevania, Zelda, and Spelunky coded into its DNA. The titular chasm is the mazelike network of tunnels that yawns beneath Karthas, from the dusty coal mine just below the surface, to the ancient dungeons and arcane temples hidden in its depths.

Enemies on the first few floors are easy to kill. Later foes, however, are deadly, requiring patience and precision to slay. But they're always predictable, and learning their patterns is where the skill lies.

But your early attempts to learn those patterns can be frustrating. When you die in Chasm you're kicked back to the menu, and forced to reload a save. Getting back into the game only takes a few seconds, but it feels like a lifetime when you've died at a boss for the tenth time and want to just get it over with. And save points are often far apart.

But whenever I'm annoyed by something in Chasm, I'm won back over by how wonderfully it plays. Everything you do is precise, and it's clear developer Bit Kid, Inc. has spent time tweaking the controls to make them feel just right. Your moveset is basic at first, but as you explore the chasm you unlock moves such as grabbing ledges, sliding, and double jumping that increase the game's complexity.

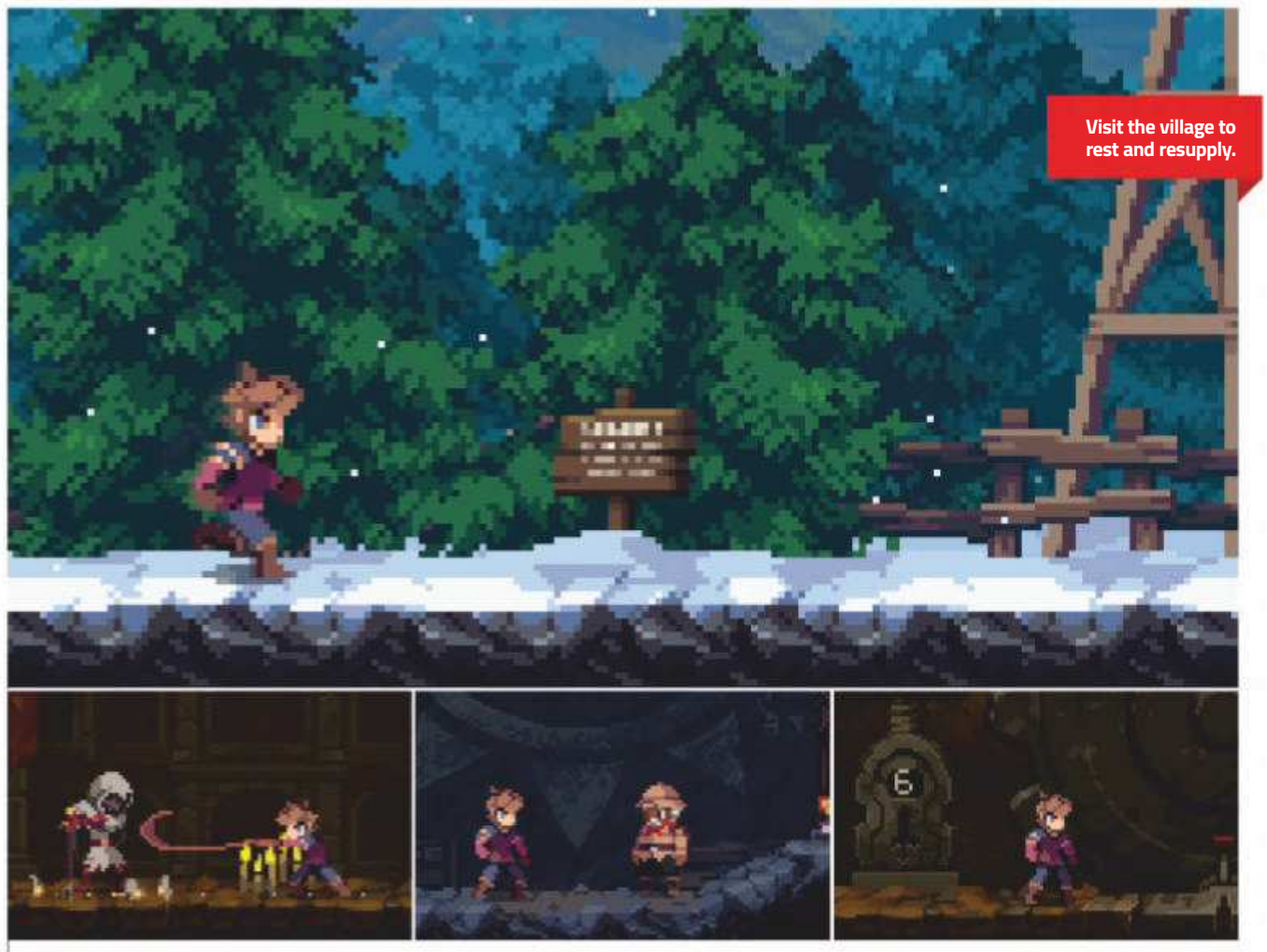
There's a procedural element to Chasm, meaning every playthrough is different. But I never once got the sense that I was playing something dreamed up by a computer, and if you told me my version of the map was hand-crafted, I'd have believed you.

In the spirit of Metroid, keeping a mental map of the world, in conjunction with a simple map that's filled in as you explore, is essential.

Your journey continues ever down, fighting bosses and minibosses, uncovering secrets, unlocking new abilities, and finding new weapons. Weapons radically change how Chasm plays. Using a knife means you have to get uncomfortably close to enemies to attack, but it does a lot of damage. The mace is slow to swing, but hits hard.

There are some light RPG elements too, with enemies spewing out little experience orbs that boost your health, strength and so on. But otherwise it's a deeply old-fashioned game—by design, of course—and that means it can be gruelling at times. You'll have to repeat sections over and over to master them, and I found my patience wearing thin more than once. But that's part of the deal in these kinds of games, and if it's a quality, polished Metroidvania adventure you want, you can't do much better than Chasm. ■

ANDY KELLY PC



> "It's a deeply old-fashioned game, and that means it can be gruelling at times."

WHY SHOULD I CARE?

+ Side-scrolling Diablo is your jam

+ You love your Metroid clones

+ Dungeons are your natural environment.

FEAR FACTOR:

TROLL
WHATEVER
About as basic as enemies get in Chasm. Can be killed in one hit, and their knife is easily avoided.

WENDIGO
SCARY
Now we're talking. This beast loves hanging from the ceiling and shaking rocks loose on you.

BONE DEVIL
TERRIFYING
A powerful flying enemy that launches volleys of fireballs, and it can take a hell of a beating, too.

VERDICT:

Beautiful pixel art and tight, refined controls make Chasm a fine modern Metroidvania to sink your teeth into.

8

State of Mind

A cyberpunk adventure set in a dystopian Berlin.

DEVELOPER DAEDALIC • **PUBLISHER** IN-HOUSE
www.daedalic.com

Set in Berlin in 2048, State of Mind is a modern, streamlined take on the point-and-click adventure. Heavy on plot and light on puzzles, its story is split between a dark, oppressive reality and an idyllic virtual utopia. Berlin is neon-lit, rain-soaked and grimy; City 5 is all gleaming glass and metal and golden sunsets. It's an interesting contrast, even if the game does lapse into cyberpunk and sci-fi cliché fairly regularly.

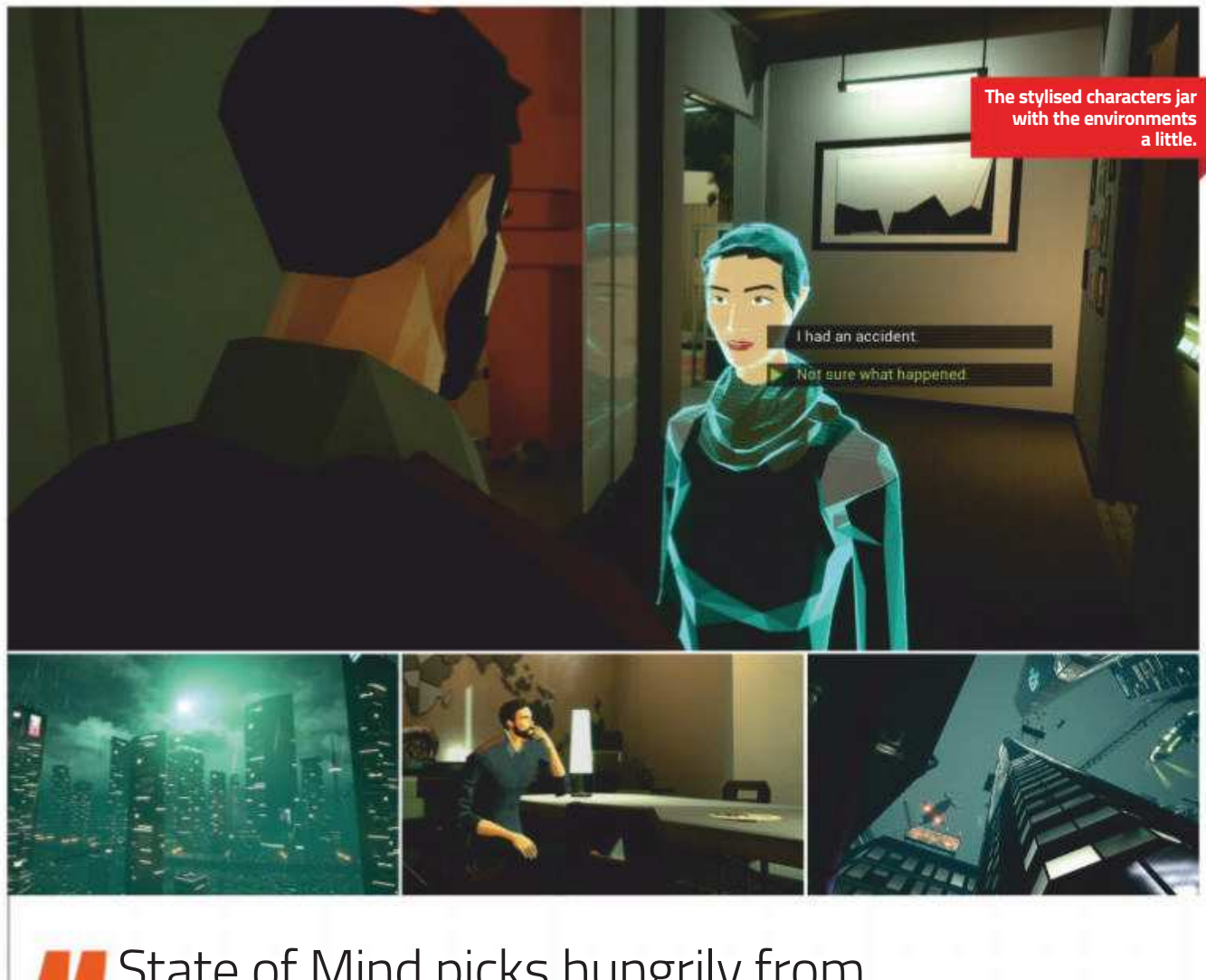
Richard Nolan, voiced by Doug 'Geralt' Cockle, lives in an apartment above Berlin. As I'm looking down at the city through a window, a robotic arm holding a holographic advert swings in, blocking my view. This is one of many examples of State of Mind's superb worldbuilding, wordlessly illustrating how commercialised and invasive this society is. But it's a beautiful place too, blending an angular, polygonal art style with atmospheric light and shadow.

Whether you're exploring the seedy backstreets of Berlin or City 5's utopia, much of your time in State of Mind is spent walking, talking, and exploring. Characters have AR vision, flagging up items in the world that can be examined, picked up, or interacted with. They also have holo-pinboards in their apartments where important details are collected and that give you some insight into what they're thinking. As is often the case in stories like these, the narrative starts small and spirals into something sprawling and complex – and honestly, convoluted.

Sometimes you get to do something a little more involved, such as flying a drone around a nightclub to try and identify a person of interest, or snooping through a database to put a face to a voice recording. But mostly you'll be talking to slightly stiff-looking characters and poking around for the right object or clue to progress the story. The pace is, as a result, unapologetically slow. This can occasionally make for a chill, leisurely experience, but mostly it just feels frustratingly languid and drawn-out.

State of Mind picks hungrily from a vast buffet of themes and concepts: transhumanism, surveillance, identity, conspiracies, social division. But its handling of them often feels half-baked, using many as window dressing rather than a core part of the story. This leaves the game feeling hollow: a fact not helped by a lack of a likeable, interesting cast. This is a moderately entertaining piece of escapism, but you'll be disappointed if you want something more substantial to chew on. ■

ANDY KELLY PC



The stylised characters jar with the environments a little.

> State of Mind picks hungrily from a vast buffet of themes...

WHY SHOULD I CARE?

+ You just want to smash the state
+ You dig on some transhumaniam
+ You like taking things slow...

VERDICT:

State of Mind offers a compelling, atmospheric vision of the future, but the story isn't as clever as it thinks it is.

6

Yakuza 0

The weird and wonderful Yakuza 0 finally arrives on PC.

DEVELOPER SEGA • **PUBLISHER** IN-HOUSE
www.yakuza.sega.com

The first thing you do is beat up a gang of street thugs. The second thing? Before the crime drama unfolds, before a real estate turf war earns you hundreds of millions of yen, before you battle your way through the Japanese underworld, you sing karaoke. You tap your way through a rhythm action minigame; the dingy bar transforming into a concert stage as series lead Kiryu imagines himself rocking out to an '80s power ballad.

Welcome to Yakuza 0, ostensibly an open world action game, but one that blends arcade-style brawling with a visual novel's languid conversations, throws in a selection of weird and wonderful minigames, and wraps it all up in a world where the sublime meets the ridiculous and the ridiculous is sublime.

This is the sixth game in the Yakuza series, which primarily tells the story of the Dragon of Dojima, Kazuma Kiryu, a man for whom being good at punching people is both the cause and solution to all of life's problems. It's also a prequel, making it the perfect entry point for new players—handy, as this is the first game in the series to be ported to PC. Yakuza 0 is set in the '80s, making it the start of Kiryu's long story, and, other than a few veiled references to the future events of previous games, it does a great job of introducing the characters and world.

aYou're free to explore; to visit stores and restaurants, to stumble into the strange encounters (called 'Substories') scattered liberally throughout, or to beat up the thugs and drunkards that pick fights with you. But you'll rarely interact with the civilians swarming the streets. If anything, that heightens the immersion of the space. Where other open world games let you go on a murder rampage in your downtime, Yakuza 0's open world is more restrained. It exists so you can play a few rounds of mahjong between missions, visit the convenience store to stock up on health replenishing drinks, or siphon your money into one of the vending machines in the hope of acquiring a new motor for your pocket circuit racing car.

It's the '80s, so cash pours from the people you hit.

> "Whatever you're doing at any moment, you're never far from a fight."

In one mission, I'm asked to buy alcohol to loosen the tongues of a group of homeless informants. I run between shops, picking up Carlsberg from the Poppo on Tenkaichi Street, and champagne from the Don Quijote on Showa Street—lodging the store's earworm of a jingle firmly in my head for the next half an hour. Later, I visit Osaka's Shot Bar STIJL, and strike up a friendship with the bartender as he explains the love-it-or-hate-it charms of a ten-year-old bottle of Laphroaig. It's rare to interact with an environment in such a grounded, low-key way.

Elsewhere, the game leans into the dramatic, never more so than during its main story. In Tokyo, Kiryu, here a low level member of the Dojima crime family, is framed for murder. He soon discovers that he's been set up by one of his family's lieutenants as part of a convoluted plot to acquire a small plot of undeveloped land. In Osaka, Goro Majima, a former yakuza member, is trapped, forced to work off his debts as manager of a cabaret club. The action switches between Kiryu and Majima every couple of chapters, letting each character's story build to an intriguing climax.

The final part of Yakuza's tonal trifecta is its Substories, which are arguably the highlight. In most, you'll be presented with an absurd situation, make a number of conversation choices, and punch someone until they stop. It's a simple enough structure, but one that entertains throughout thanks largely to

WHY SHOULD I CARE?

+ You need some silly drama in your life

+ You dig on some sexy dragon tattoos

+ Too much martial arts is never enough.

STYLES CLASH

YOUR GUIDE TO FIGHTING STYLES

BRAWLER
KIRYU
Your usual punches, kicks, and throws, with the twist that you get more moves when you're a bit drunk.

RUSH
KIRYU
Fast punches and snappy dodging make this is a useful style for taking on strong, lumbering enemies.

BEAST
KIRYU
Attack like you're holding a grudge, walk like you've got constipation. Beast mode is a heavy hitting style.

THUG
MAJIMA
It's a lot like Kiryu's Brawler style, but with some added eye poking. Majima fights dirty when given the chance.

BREAKER
MAJIMA
Inspired by breakdancing. Spin and flip into long combos, but remember to strike a pose.

SLUGGER
MAJIMA
You know what? Screw fancy brawling. Why not just beat the shit out of someone with a baseball bat?

The main story leans into the dramatic.

how silly it all is. You'll help definitely-not-Michael Jackson shoot a music video by battling zombies as he dances down the street. You'll advise a mild-mannered punk group on the best way to fit in with their fans.

This clash of realism, drama, and comedy might sound like a disparate grab bag of styles, but Substories are a key part of why Yakuza 0 works so well. They help humanize Kiryu and Majima, letting their personalities shine through.

Whatever you're doing at any moment, you're never far from a fight. Yakuza 0's combat system is simple on the surface—on normal difficulty you can go a long way with just a basic combo. But scratch beneath that surface, and there's a lot going on. Each character has three different attack styles. When Kiryu is in Beast stance, for instance, he'll automatically pick up objects to use as weapons as he attacks. Majima's Slugger stance, meanwhile, can unleash devastating combos with a baseball bat. Each style has its own quirks and special 'Heat' moves—specials that can be deployed at opportune moments to deal massive, often brutal-looking damage.

Yakuza 0 does have some issues though. You have to visit a phone booth to save your game, which is fine in theory, but, in 2018, it's too easy to take autosave systems as granted.

As for the PC port, it's mostly solid. There's plenty of scope to tweak graphics options, with 4K resolution support, supersampling, and a handful of more granular options.

Perhaps the most notable performance issue is how Yakuza 0 scales to higher resolutions. There's notable aliasing on the subtitles of cutscenes and on the map. It's not a major fault, but it's not ideal when you're meant to be paying attention to the content of the subtitles, not the presentation.

Putting up with a minor annoyance is worth it, because Yakuza 0 is one of the most eccentric, idiosyncratic, and charming games around. It deftly moves between drama and humor, between story and action, between arcade distractions and lengthy, well-written pulp dialogue about a man who is incredibly good at punching. There's simply nothing else quite like it, and it's well worth your time. ■

PHIL SAVAGE PC

WHAT TO DO:

MAN ABOUT TOWN

BOWLING

- Theater Square Alley is the place to go to knock down pins and acquire a chicken.

SHOGI

- On Senryo Avenue, find a game that's like chess, only I don't understand it.

KARAOKE

- A bar on Pink Street North will let you fantasize about being a rock god.

VERDICT:

The best and funniest game about a battle over real estate, now available on PC as a good port at a generous price.

9

Monster Hunter: World

Sets up a reverse Jurassic Park scenario and adds high fashion to make dragon murder infinitely

DEVELOPER CAPCOM • **PUBLISHER** IN-HOUSE • **PRICE** $US60
www.monsterhunterworld.com

Monster Hunter: World is an action game about dominating the food chain and looking good while doing so. It's renowned for its endgame, where you go on challenging hunts in search of rare items needed to craft an armor set that'll crown you the min-max champion of the world, but Monster Hunter's essence and greatest strength is its prolonged, desperate, and tragic fights with beautiful beasts.

Unlike the story, murdering World's dozens of intricately designed monsters has a point. There's no levelling up and skill point allocation in Monster Hunter, so crafting armor and weapons is the only way to permanently buff your stats. Gear crafted from monsters reflects their strengths and weaknesses, so if you're having trouble with a thick-skinned fire type creature, you'd best go take down a flame-spouting rathalos for a set of fire-resistant armor, and seek out a poisonous monster to create a weapon that does a bit more damage over time.

All 30-something monsters (with more on the way via free updates) have distinct personalities brought to life through realistic animation, observable behaviors, and detailed models. My favorite, the paolumu, is a fuzzy pink and white bat creature that balloons like a blowfish when threatened.

Hunts work the same throughout the entire game. You 'post' a quest in the hub area, eat a quick meal to buff your stats, and if you're playing with friends, you and up to three others embark on a hunt. From there, you'll wander an intricate environment in search of your monster. Scoutflies, sentient compass bugs, will point you to nearby crafting materials and monster tracks.

Problem is, biomes are populated with monsters besides your target, and they'll probably interrupt your fight. Letting them duke it out while you hide can work in your favor, but staying out of the way isn't easy. Environmental hazards complicate hunts further.

A totally normal relationship.

> "... you can and will get poisoned, paralyzed, burned, stunlocked, and put to sleep."

WHY SHOULD I CARE?

+ If you live for the hunt

+ You're always ready for a fashion upgrade

+ You can dress your pet in fancy clothes.

Monsters have no visible health bar, but they'll appear tired and increasingly scarred the weaker they get. At certain intervals, they'll make a break for it and try to find a place to sleep or hunt prey of their own to eat in order to regain HP and stamina, turning hunts into frenzied chases. Knowing your environment, where the monster might be headed, and the fastest way to get there only comes with experience.

That's okay because World's combat is strongest when it feels like a struggle. Swings with a great sword take literal seconds of animation, the hammer requires getting too close for comfort, and even the mobile ranged weapons feel like unwieldy, clunky machines. I'm partial to the switch axe, a weapon that stores elemental damage and releases it in explosive bursts after transforming into a glowing sword.

Regardless, you can and will get poisoned, paralyzed, burned, stunlocked, put to sleep, and become subject to every attack your quarry can muster while you're helpless. Swings and shots from your friends can interrupt your own, and your every attempt to exhaust your movement abilities will also exhaust your character. Combat isn't fun in the way of Devil May Cry, which rewards constant, fluid combos and perfect timing, but it is always tense, and often hilarious.

But so much gets in the way of that crunchy feedback loop. If the intent of crafting and gear management (the usual downtime activity between hunts) is to make you feel as if you've cultivated food, curated your looks and performed the proper research

PALICO FALL CATALOG

THE BEST THREADS FOR YOUR CAT FRIEND

DEATH
For the black cat in all of us.

ODOGARON
About as cute as a demon gets.

KADACHI
The Frozen audition didn't work out.

BAAN
Functionally sturdy, stylistically adorable.

PUKEI
This pilot-like set comes with a lute.

LADYBUG
Should be illegal. Explodes hearts.

There's something dark behind those eyes.

required to take down whatever big boy is next on the list, then abstract menu interactions aren't the most inventive or satisfying way to go about it.

As busy and complex as the crafting and item management appears, it's painless in practice, simplifying the series' formerly complex systems to such a degree that they don't even resemble the systems they're simplifying. Why not reinvent them at this point?

Monster Hunter: World also opens by bashing you over the head with text-heavy tutorials. You'll learn how to craft dozens of items immediately, most of which won't matter until hours in. Meanwhile, vital tips are glossed over. The bulk of Monster Hunter: World's inner workings are only accessible through wikis and hearsay, the assumption being that you'll figure some stuff out on your own, or collapse and turn to Google.

Monster Hunter: World changes significantly once you reach high rank play. Hunts are remixed by adding layered objectives, like defeating multiple monsters in a shortened time frame or by juicing the elemental abilities of a previously weaker monster. New monsters continue to appear in the endgame, often requiring raid-like planning with a full team of four. As you progress further into high rank missions, small mistakes are met with massive punishments, and the study and preparation for a single hunt might require a whole new armor set and weapon.

It can be frustratingly slow, especially after the breezy hunts of the story campaign. And yet, every challenge is a natural extension of the combat system. Grinding out the best gear for a tough hunt is a smart, often necessary, idea, but if you know when to swing and when to run, you'll be alright.

Like your character, World dresses its breathless combat in every assortment of the most arbitrarily complicated garb, all in the name of variety. It is an abyss of replayabilty, an exercise in patience and observation for the ultimate payoff: An infinite black sea of invigorating dragon murder. And a new hat.

JAMES DAVENPORT PC

FIELD KIT:

POTION
- For when you're hurt. Combine with honey to enhance them.

ANTIDOTE
- Monsters love puking poison on you. Shake it off with this.

RATION
- Max stamina depletes. Eat some food to get it back.

FLASH POD
- Daze monsters to get a few free hits in (or for a tactical retreat).

SHOCK TRAP
- Once a beast is weak, drop this in front of them. And then...

TRANQ BOMB
- Pop a few of these in their face and they're yours, trapped.

VERDICT:

The fights with beasts never get old, even if they require tiresome item management during the downtime periods.

9

Shenmue I & II

Beloved Dreamcast epics finally make their PC debuts.

DEVELOPER D3T/SEGA AM2 • **PUBLISHER** SEGA • **PRICE** £25
www.bit.ly/segashenmue

It's 1986 and on a bleak, snowy November day, teenager Ryo Hazuki witnesses his father's murder at the family dojo. Swearing revenge, he dedicates his life to finding the man responsible – a mission that takes him from the streets of Yokosuka, Japan to the sprawling metropolis of Hong Kong and beyond, across two huge, ambitious and idiosyncratic games. Many of the features that were considered groundbreaking back in 1999 may seem quaint by modern standards, but almost 20 years after it was first released, Shenmue is still an experience that no other game will give you.

The first game is set in a small corner of Yokosuka, which includes the suburbs of Sakuragaoka and Yamanose, and Dobuita, a busy high street with shops, bars, restaurants, and arcades. It's the '80s after all. Ryo doesn't know who killed his father – only that he's Chinese, wears a coat with a dragon on it and drives a black car. And so, armed with this information, he wanders his hometown looking for clues.

One of Shenmue's many contradictions is that, despite this urgent, driven quest for vengeance, it's a slow, peaceful and thoughtful game. As much as it's an epic martial arts adventure, it's also a painstakingly detailed and wonderfully mundane life simulator. If your investigation hits a brick wall or you have to wait until evening or the next day to continue it, there's no fade to black. You just have to wait.

Yokosuka may be small, but it's a remarkably rich, detailed space, offering numerous ways to kill time. You can go shopping, feed an orphaned kitten, play Space Harrier at the local arcade, work on your capsule toy collection, or practice your moves in the dojo. Strangely, these uneventful moments are among the most memorable in Shenmue. Simply living the life of an aimless Japanese teenager is incredibly compelling, and later on the game's love of the mundane reaches its peak when Ryo gets a job at the harbour as a forklift driver, which you actually have to do, picking up crates and ferrying them between warehouses.

Ryo gets into a scrap with a biker gang.

> "Living the life of an aimless Japanese teenager is compelling"

WHY SHOULD I CARE?

+ You just want to walk around Japan

+ While on a trail of VENGEANCE

+ And... racing a forklift? Really?

Sometimes you'll investigate a clue that leads to something that's a lot more traditionally exciting. Another of Shenmue's beautiful contradictions is how Ryo is a softly spoken, good-natured, gentle soul, but also a skilled martial artist who can kick the shit out of anyone who crosses him. His pursuit of Lan Di, his father's killer, leads to run-ins with local criminals, biker gangs and other shady types, which is where the Virtua Fighter-inspired combat comes into play. There are a variety of moves to learn and master, and battles range from one-on-one fights with powerful foes to multi-enemy brawls. But violence is always a last resort for Ryo.

Shenmue is a deeply melancholy game, and there's a tragedy to Ryo sacrificing his youth, his safety and his loved ones to single-mindedly pursue a man who could probably kill him in the blink of an eye. Ryo's relationship with Nozomi, a local girl who cares deeply for him, is absolutely heartbreaking, because his thirst for revenge makes him utterly oblivious to her kindness. It's an extremely emotional game, even if the English voice acting is terrible to the point of being comically surreal.

And then there's Shenmue II, which sees Ryo leaving Yokosuka behind and travelling to Hong Kong. Although the fundamentals of the game are pretty much the same, the shift from a handful of small, intricate streets to a massive, modern city makes the sequel feel

KILL TIME:

KILLING TIME THINGS TO DO IN YOKOSUKA

ARCADE
Visit the seedy You Arcade in Dobuita and you can play a selection of SEGA classics including *Hang On* and *Space Harrier*.

GACHAPON
These machines spit out little capsules containing toys, some of which are very rare. Try and complete the collection.

DARTS
You can play electronic darts in the arcade and harbour lounge. Earn more than 300 points and you'll win a rare capsule toy.

SHOPPING
You can spend your yen at the Tomato Convenience Store. Be sure to grab some fish for Megumi's orphaned kitten.

Lan Di, the man who killed your father.

radically different.

Once again, Ryo spends the bulk of the game wandering the streets, interrogating people, and following leads – but now there are hundreds more people to talk to, which can make this aspect of the game feel slower and more laborious than in the original. Luckily there are a few quality-of-life improvements, including NPCs who will generously walk you to a location you're looking for, and the ability to fast forward the clock instead of hanging around waiting for an event to trigger or a shop to open.

There are also part-time jobs to take on in Shenmue II, including lugging crates around Fortune's Pier and manning a Lucky Hit gambling stand. But these aren't even half as enjoyable as the original's forklift driving.

One thing I really love about both Shenmue games is the lack of hand-holding. There are no objective markers or minimaps: just a few lines in Ryo's notebook about what lead to investigate next. It's a game that rewards paying attention to your surroundings and thinking logically – although, admittedly, the vastly increased size of Shenmue II can make doing so a lot more difficult.

Ryo eventually leaves Hong Kong and a little of the quiet intimacy of the first game is restored. He journeys to Kowloon, a ramshackle, self-governed Chinese city based on the real-life Kowloon Walled City. Then, later, to Bailu Village in an idyllic forested region called Guilin. Neither reach the heights of Yokosuka in terms of world-building or atmosphere, but the change of scenery is a welcome one.

This PC version is very faithful to the original. I'm glad SEGA chose not to dramatically overhaul the visuals; they're a vital part of the game's distinct character. But it has been prettied up with a crisp HD interface, and anti-aliasing.

Shenmue is a strange, meandering, often obtuse series. And yet, I love it. I love its passion for the mundane. I love its sad, downbeat tone. I love forklift racing. And I love how, all these years later, I've never played anything else quite like it. You might not love these things yet, but you will.

ANDY KELLY PC

HOME LIFE:

A LOOK INSIDE THE HAZUKI RESIDENCE

KITCHEN

Ine-san, the Hazuki family's loyal housekeeper, can usually be found working in the kitchen. She's like a mother to Ryo.

BEDROOM

This is the bedroom of Fuku-san, a young student at Iwao Hazuki's dojo. He seems to be a fan of the *Virtua Fighter* series.

LOUNGE

The household contains a SEGA Saturn, despite the fact the game is set in 1986 and that console was released in Japan in 1994.

VERDICT:

A weird, beautiful and melancholy martial arts adventure. Flawed, but an unforgettable, singular experience.

9

Two Point Hospital

A brilliant management game, regardless of nostalgia

DEVELOPER TWO POINT STUDIOS • **PUBLISHER** SEGA
www.twopointhospital.com

Running a hospital is a messy business. Managing the moods of petulant doctors, curing a bizarre list of fictitious illnesses, cleaning up poo and literally putting out fires – there's little time to sit back and listen to the radio DJs driving patients to distraction over the PA system. The upbeat music, silly diseases and constant puns create a false sense of security, but underneath its tongue-in-cheek exterior this is a dense, tricky management game.

Amid the barrage of catastrophes there's one golden rule: cure as many people as you can. To get the star ratings that will let you move onto the next mission, you'll need to complete objectives ranging from making the hospital look fetching to finding a cure for being a mime, but you won't be able to do that if you don't focus on trying to keep everyone alive. Fail too many of the people relying on you and your reputation will suffer, stopping you from getting quality hospital staff and patients with fat bank accounts.

Initially, the juggling of tasks is kept to a minimum because there are only a few ailments that need your attention. This is in comparison to the later missions where you'll have massive hospitals, epidemics and more bad jokes masquerading as diseases than you'll be able to handle without running out of expletives. Even when you can focus on just a few problems, things still tend to spiral.

Consider the effort that goes into helping one patient. When they arrive they need to know where to go, necessitating a reception and an assistant to work there. At this point, nobody knows what's wrong with them, so off they go to get diagnosed. A GP might be able to help with that, though it usually requires more than one diagnosis, so you'll be wanting a general diagnosis room, a cardio room and even a ward, all of which have a chance to reveal the sickness. That's around five members of staff and accompanying rooms, and that's potentially before treatment has even started.

Handheld vacuum cleaners are ghosts' natural predators.

> Clicking on a single patient can send you down a rabbit hole for the next hour...

WHY SHOULD I CARE?

+ You just want to help people

+ You believe cleanliness is next to Godliness

+ You really, really miss Chicago Hope.

Even with the foundations built, there's no time to rest. Impressively, even after around 15 missions, I've yet to experience a noticeable lull in the drama. I've never found myself twiddling my thumbs, because there's always a conundrum ready to smack me in the face. Greatest among them, my nemesis you might say, is the dreaded queue.

As a hospital's reputation increases, whether that's because of a good treatment record, a celebrity visit or an aggressive marketing campaign, more patients will start to appear, along with a whole host of weird and wonderful issues. While each treatment has a specific room and device associated with it, every patient still needs to go through the diagnosis process, potentially creating a bottleneck. I can't count the times I've had a de-lux clinic waiting to be used, but all the patients are stuck outside the GP's office.

Clicking on a single patient can send you down a rabbit hole for the next hour, fine-tuning your hospital with hand sanitisers to keep out the germs and training sessions so your surgeons can also cover GPs. With each little tweak, you can see the hospital reacting and improving, rewarding you for your efforts. It should feel like you're getting pulled in a million different directions, stretched to breaking point, but instead one thing naturally leads to another. With one problem solved, you'll float into the next, and because of the interconnectedness of the hospital, you might not even perceive them as two separate problems. It's one giant

KNOW YOUR ILLNESS

YOU WON'T FIND THESE IN A MEDICAL TEXTBOOK

MOCK STAR
Like *Theme Hospital*'s King Complex, but objectively better.

NIGHT FEVER
Disco has risen from the grave and needs to be put down again.

LIGHTHEADEDNESS
A terrible affliction that... wait how is he doing that without a mouth?

JEST INFECTION
A disease nearly as bad as its pun – patients should be put in a tent.

SHOCK HORROR
There's only one cure for spontaneous shocks. More electrocution.

PANDEMIC
Otherwise known as 'stupidity', *Two Point*'s only real-life ailment.

organism that you have to treat. I expected to be perpetually stressed, but there was always a solution staring me in the face.

Each hospital is also just one part of a growing portfolio of private clinics, surgeries and teaching hospitals. By fulfilling each mission's first objective, you'll be able to move onto the next, but progression isn't completely linear. The world is split up into regions, each with three hospitals, one of which is locked, while the others can be tackled in either order. At any point, you can bounce out of your hospital and hit up any that you've unlocked, almost but not quite making up for the absence of a proper sandbox mode. The main reason to return to old haunts is to get a higher star rating by completing the additional objectives. It's possible to do them all in one go before moving to the next hospital, but in the later regions they start to become demanding. With new rooms and equipment unlocked in other missions, you can smash through old obstacles with ease.

Progression feels brisk and consistent. New toys are always appearing, a brand-new hospital is only ever one objective away, and throughout it all you're getting rewarded with kudosh, a currency that can be spent on items to spice up your sterile rooms. There are a few ways to get kudosh, including in-game achievements, but the most reliable way is by completing random challenges, like curing seven people with animal magnetism (they're literally animal magnets). These items let you flood your hospitals with character, but they also serve a practical purpose, increasing the hospital's prestige and putting everyone in a better mood.

While Two Point Hospital covers a lot of familiar territory, it doesn't feel like it's been rudely dragged out of the '90s. If you've been offering up stethoscopes to Hippocrates' ghost for a new Theme Hospital, you'll find it here; but if you're not craving that fix of nostalgia, Two Points Studios' spiritual successor will still keep you up to your elbows in corpses and icky illnesses until the wee hours of the morning.

FRASER BROWN PC

THE PATIENT'S JOURNEY FROM DISEASE-RIDDEN TO 'PERFECT HEALTH'

Diagnosis

Queuing

Second diagnosis

Wandering around, clutching your stomach

Vomiting

Getting a huge needle forced into your spine

Probably death

VERDICT:

Two Point Hospital is a wonderful place to work, just ignore all the corpses that'll inevitably pile up under your watch.

9

F1 2018

Faithful to its licence, F1 2018 is both high-tech and outdated.

DEVELOPER CODEMASTERS • **PUBLISHER** IN-HOUSE
www.codemasters.com/game/f1-2018

You've got to feel for Codemasters' design team when the annual, 'What shall we put in next year's game?' meeting cropped up at the end of the 2017 season. "Well, there are unsightly head protectors on the cars now, so they'll be going in." Everyone gives resigned nods. "And… shall we totally overhaul the game engine?" No. No we shan't, Callum, because the game's out in eight months.

Working to an annual deadline, it's testament to the developer's talents that the series has maintained, by and large, a high standard worthy of the licence. But that licence is a double-edged sword: over in the real sport, Lewis Hamilton has been a blur of Petronas logos for what feels like ages, drivers are openly bemoaning the tedium of racing, and the most discernable change of the 2018 season is the reviled 'halo' protector.

What F1 2018 does in response to this bag of lemons, knowing that its fundamental handling was stellar in F1 2017 and in need of very little revision, is focus on its career mode. Press interviews return, having debuted in F1 2010, this time bringing RPG-like ripples of consequence to team relationships. If you spend all your time bleating on about how rubbish the aero package is, the aero development team will remember that – each team's morale is now dynamic and affects the speed of iterating on the car.

It also says a lot about modern F1 that developing parts is such a focus in this game. A dull aspect of your driver duties, but one that deepens the RPG vibes within career mode. The development trees are bespoke to each team now, and there's a real buzz to be found in watching your team's line increase on the performance graph, reaching up to the frontrunners with every upgrade.

> "Despite a fleet of minor improvements, I don't feel inspired to sink another hundred hours into this game..."

WHY SHOULD I CARE?

+ You have a slavish devotion to the sport
+ You're a completionist
+ Your need for speed.

And the knock-on effect of that, in turn, is that F1 2018 can be played as a 'give Fernando Alonso a championship-winning car again' sim, to great effect. Grinding away in free practice sessions, earning upgrade points by completing hot laps, spending them prudently on the right parts, and then inconspicuously easing off the throttle on the last lap to let Nando take P1 because, lest we forget, Fernando is faster than you.

There's a big change to contract negotiations, too. Anyone who's spent the last seven games driving a turgid debut season for Sauber and holding out for a Red Bull contract the following year will be happy to hear mid-season team changes are now possible. You still get the payoff of having proven yourself among the backmarkers and scored a deserving upgrade, but you can enjoy that rags-to-riches trajectory in an afternoon now rather than a month.

Heading onto the track, the game's still excellent. Visually rich without melting your graphics card, wonderful with a pad and some assists, very nearly as wonderful with a wheel and no assists. The suspension refresh rate's increased this year, and – look, don't laugh. You really do get a sense of it when you bounce over some of the more aggressive apices at Barcelona and Monaco. AI opponents are sharp but fallible, as always demonstrating Codies' uncanny ability to mimic believable racing.

Over in multiplayer, a super licence system is the big new addition, aimed to get you driving less like Max Verstappen and more like someone who grasps the concept of sportsmanship. Contact and corner cutting counts against you, clean driving works in your favour. It's fancy matchmaking that pairs serious racers with one another, and lets crashers crash into other crashers.

Despite all that's new here, I don't love F1 2018. There's nothing wrong with the new additions, nor has the quality of the racing dipped. But with the likes of Fortnite splurging brand-new content on players for free every few months, annualised models like this feel underwhelming. Despite a fleet of minor improvements, I don't feel inspired to sink another hundred hours into this game, because for all the halos and journalists, it's broadly the same experience again.

PHIL IWANIUK PC

IN WITH THE OLD:

2009 BRAWN GP
Cobbled together following Honda's withdrawal the previous year, it won the title for Button.

2003 WILLIAMS
Ralf Schumacher and Montoya looked set to topple Ferrari with this racer, but never quite managed it.

1976 FERRARI
One of several new '70s models, this one was Lauda's vehicle during the Lauda vs Hunt years.

VERDICT:

Following a series high last year, F1 2018's welcome additions don't add up to a meaningfully fresh experience.

7

Many a front wing has met its end on the opening lap, so it pays to take it easy.

Overcooked 2

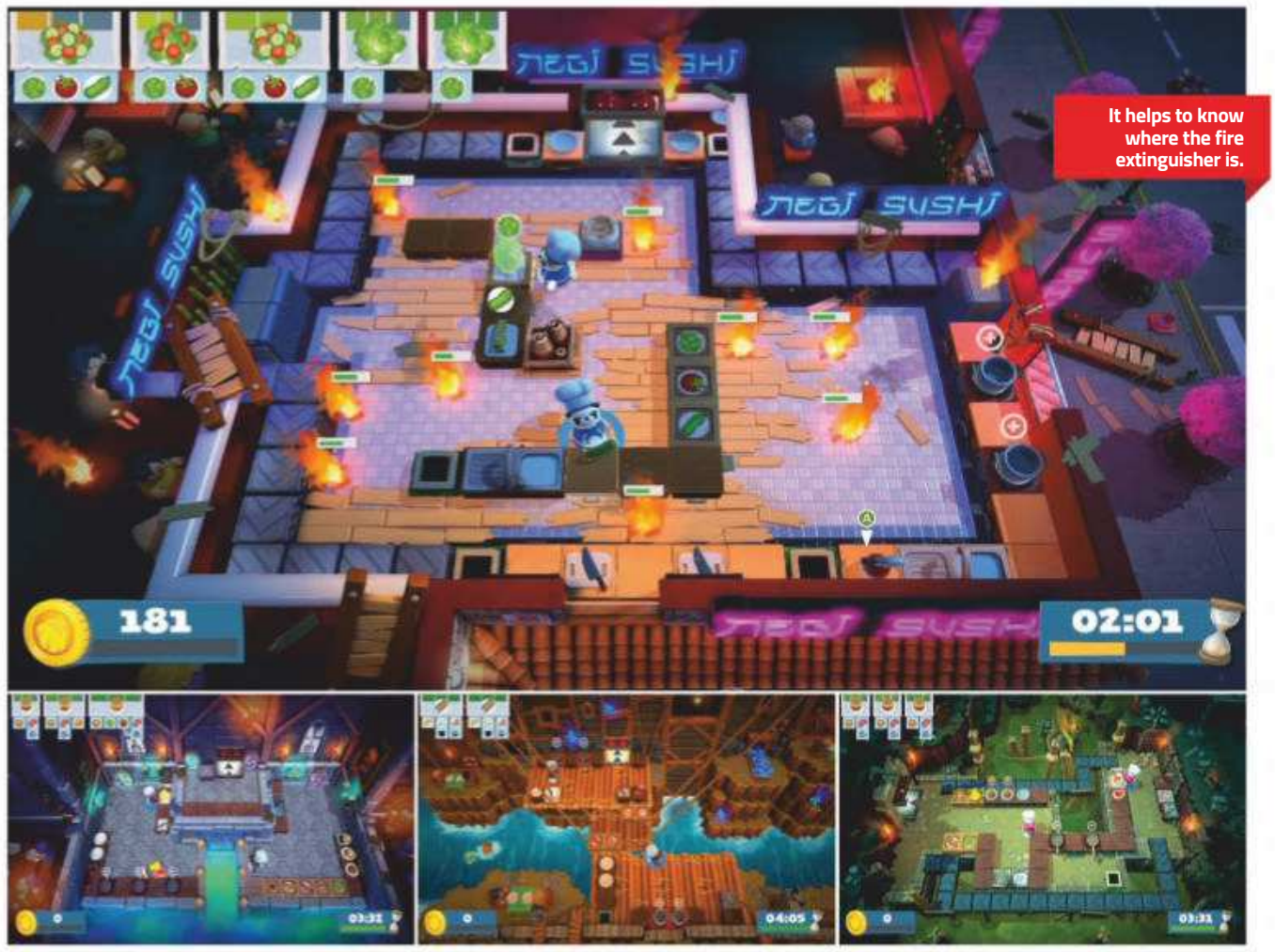
A second helping of madcap meal-making.

DEVELOPER GHOST TOWN GAMES • **PUBLISHER** TEAM17 • **PRICE** $US25
www.ghosttowngames.com

Like the original, Overcooked 2 is a cheerful, nonviolent co-op game that's simple enough for the whole family to enjoy. It also happens to be one of the most stressful games you'll ever play. This sequel adds a generous helping of new ingredients, but at its core it's the same game: One that, for all its fantastical elements and wilfully counterintuitive working environments, captures the pressure-cooker tension of a busy restaurant kitchen.

As before, your goal is to successfully serve as many dishes as you can within four minutes: chopping, mixing, frying and steaming ingredients according to the recipe. There's a wider variety of orders this time, including sushi and nuggets and fries but the processes themselves are still very simple. Multitasking so you can fulfil as many orders as possible in good time is where it gets tricky. On top of that you've got stage hazards that force you to adapt your processes, and that's when your careful planning starts to fall apart.

One of the big changes this time is that you can now throw raw ingredients, whether they're fresh from the pantry or just chopped. Often it's simply a useful time-saver, but sometimes you've no other option: on one stage, your 'kitchen' is actually two rafts hurtling down a river, while another forces you to lob items back and forth between a pair of hot-air balloons. Elsewhere, a rotating partition can split you up from a fellow chef, forcing them to pass over a half-completed dish so you can finish the job. It's incredibly satisfying to find your range and lob a patty into a pan—or a tortilla directly into the hands of your partner to finish one final burrito with a second to spare. In reality, you're as likely to end up inadvertently lobbing some tomatoes away in your confusion. That it's mapped to the same button as 'chop' is a stroke of evil genius.



It helps to know where the fire extinguisher is.

> Kitchens are cluttered, chaotic places. If it was neater it wouldn't be nearly as funny...

WHY SHOULD I CARE?

+ You love food
+ You love chaos
+ You both chaos AND food.

It's a reminder that there's a degree of awkwardness baked into Overcooked that can frustrate, but is ultimately the making of it. The interface is far from perfect: each dish is a mass of icons, sometimes obscuring whatever's in the space next to it. As such, it can be a struggle to tell when you've inadvertently taken a pan off the heat too soon, or why the game won't let you put one ingredient on a plate with something else. But that's the point. Kitchens are cluttered, chaotic places. If it was neater it wouldn't be nearly as funny: there would be fewer moments where you accidentally put fried meat in the sink.

Online play, meanwhile, is slightly underwhelming. The implementation is fine—public and private matches are available in both the standard arcade and competitive versus modes, letting the lobby vote from the six level themes. And it's far better than cooking on your own. But it's not quite the same as when you're sharing couch space and screen space with three others.

As long as you're cooking with friends, you'll have a riotous time with a sequel that still offers one of the most deliciously chaotic multiplayer experiences on PC..

CHRIS SCHILLING PC

PRO TIPS:

LEVEL: 3-5
WATCH OUT FOR
- Plate shortages—you've only got two, and you can't throw them.
- Drop everything to grab the plates.

LEVEL: 4-4
WATCH OUT FOR
- High winds across the bridges. It's all too easy to lose your completed dishes.
- Exercise caution when you're switching sides.

LEVEL: 6-5
WATCH OUT FOR
- Well, you can hardly miss half the kitchen sinking every so often.
- Only fry meat just after the water has risen

VERDICT:

Do you have a long online friends list, but are short of local multiplayer pals? This safe and solid sequel was made for you.

8

Strange Brigade

Belongs in a museum.

DEVELOPER REBELLION • **PUBLISHER** IN-HOUSE
www.strangebrigade.com

The powerful blast of the shotgun has a pleasing, chest-deep BOOM to it

Deep in the bowels of a sacred temple, my buddy has been stabbed to death. An angry mummy – completely and rightfully pissed off that a bunch of dicks are stealing their gold – is chewing on his face until his corpse disappears. He reappears in a sarcophagus near me. I open the door, and out he pops, good as new, back into the fight. He shoots the mummy that had previously killed him before the undead sap can climb off the tiles.

When it comes to making exciting combat moments, an instant-respawn sarcophagus isn't ideal. Any other co-op shooter would have players fall wounded to the ground, unable to get up until a friend fights their way over and applies a bandage. This forces players to stick together. It's exciting, it mixes things up, it forces players to stay moving.

The sarcophagus, by contrast, teleports a dead teammate out of trouble and into the back of the room. I was standing next to the sarcophagus, shooting zombies and casually hitting a button to bring friends back to life. It's a weak way for a game to encourage teamwork. Then again, that's how Strange Brigade handles most things.

Four adventurers – a mercenary, a professor, a warrior and a mechanic – walk into an airship. This is the Strange Brigade, a team that goes a-plundering, raiding tombs, solving puzzles, and shooting the undead. Each mission helps unlock better weapons and new special abilities so the Brigade can kick more ass on the next mission.

The raid-loot-upgrade loop is a comfortable one, but I've never seen it look as sparse as it does here.

The characters are more or less identical, so no matter who you pick, you can use the same equipment. This flexibility makes sense, except anyone can be any character in any game, even if that character is already taken.

> "I began to ache for a new idea, a surprise that would pull me back in"

For such a simple concept, it's amazing that Strange Brigade is fun at all. A lot of it comes down to the shooting - Rebellion spent a lot of time fine-tuning its guns with the Sniper Elite series, so each shot feels punchy. The enemies all started looking the same after a while, but the most important thing about a horde is its size. Surviving against huge odds, reaching the end just as I'm down to my last handful of ammo, is always a thrill.

Strange Brigade takes place in Egypt, in a rip-roaring fantabulous newsreel version of the '30s. There's a strange ra-ra jingoism going on. But the setting is mostly an affectation, an excuse for Rebellion's scriptwriters to really rub on the razzle dazzle.

Enjoying Strange Brigade depends on how much fun I can have with my friends, and nothing at all to do with the game. And that's too bad, because my friends will follow me around to better games – games where the adventure has something to say and the action has new ideas to explore. ■

IAN BIRNBAUM PC

WHY SHOULD I CARE?

+ You year for Empire

+ Co-op is the best op

+ You really hate mummies.

GRAND DESIGNS

TRAPS: DEADLY MACHINATIONS AND YOU

SPINNING BLADES
A wheel of giant knives. Very popular with disgraced interior decorators.

EXPLOSIVE BARRELS
Egyptians were famous for leaving this stuff all over the place.

SPIKE TRAPS
A pile of defective spears spring-loaded and aimed squarely at your feet for when you step over them.

FLAME JETS
The wealthiest merchant of the ancient world sold flame jets and flame jet accessories.

VERDICT:

Though it's good for some fun with a group of friends, there are other, better co-op adventures out there.

7

Tech 273

YOUR GUIDE TO PC GAMING HARDWARE

The key to good gaming

Who the heck lets me keep writing headlines?

Last issue, it was headphones. This issue, it's keyboards that I'm slaving over, looking at four of the newest mechanical keyboards to hit the market. It's a hyper-competitive space, with more players entering both the global and local spheres. More new key types, too, more 'unique' features to try and separate one company's offering from the next...

But the truth is most of the extras are hardly necessities. I turn off teh most extravagant RBG lighting efffects; I almost never use USB or ausio passthroughs. I do like a good volume wheel, though.

By and large, though, it's that experience beneath my fingers, with the hardware's aesthetic that keeps a board on my desk. That, and I am a Cherry MX fanboy, and as much as competitor switches have come along, I really do believe Cherry's are up there with the best.

Yeah, call me a fanboy if you want...

While I've been doing that, however, Chris has been hard at work on hardware of a whole other stripe, benching the living HECK out of Nvidia's new RTX 20-series cards. We've got a 2080 and 2080 Ti, and we're hoping to have a 2070 and some third party cards for next issue. But for now, one thing is easy to say - these cards are absolute monsters. Read on...

David Hollingworth

Editor

Our Power Award is given to products that are best in class no matter your budget.

Our Smart Buy Award goes to products that balance performance with price tag.

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THE PCPP TESTBENCH

CPU
INTEL I7 7700K
intel.com.au

MOBO
ASUS Z270 ROG CROSSHAIR VI HERO
asus.com.au

RAM
2 X BALLISTIX 8GB DDR4-3200
crucial.com

PSU
CORSAIR 850W PSU
corsair.com

COOLING
H105 CORSAIR COOLER
www.corsair.com.au

NVIDIA RTX

Not only is the first new GPU from Nvidia in two years blazing fast, it also heralds a new age of technologies that will make your games look even more lifelike. Chris Szewczyk hits the Labs.

Here we go! The biggest PC component launch of the year is upon us. The reveal of a new graphics architecture is always exciting and this one represents one of the biggest ground-up overhauls in recent memory. Nvidia's Pascal cards have long been excellent, but gamers have been itching to get their hands on a new generation for a long time. That time is now.

Nvidia's GeForce RTX series is initially represented by the RTX 2080 and RTX 2080 Ti. New GPUs tend be chock full of new technologies, but this one is something different. Nvidia's synonymous GTX branding goes all the way back to 2005, so the change to RTX branding is something of a seismic shift from the green team. The Turing GPUs at the heart of the RTX series of cards introduce some revolutionary new technologies that aim to raise the bar for graphical fidelity. There's been a lot of hype ever since the global reveal at Gamescom, and let's be honest, expectations about how these technologies will perform in the real world are very high. The hype is strong.

BIG AND VERY NEW

The RTX 2080 Ti is an absolute monster. Its TU102 core is a MASSIVE 754 square mm chip packing 18.6 billion transistors. It's fabricated using TSMC's 12nm FinFET manufacturing process. The RTX 2080 makes use of the smaller TU104 GPU, but it's still an exceptionally large 545 square mm chip. These are big, powerful and very complicated GPUs.

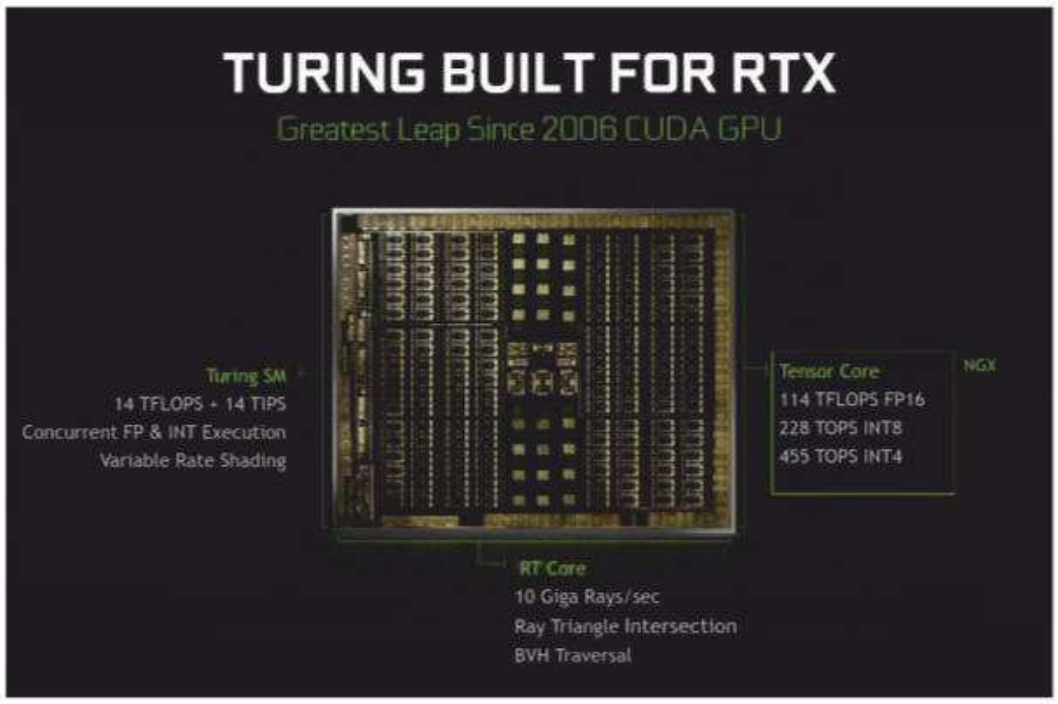
As the RTX branding itself suggests, Nvidia is betting big on ray tracing, believing it to be the future of PC gaming graphics. To this end it has included what are

NVIDIA 2080 BENCHMARKS

Indictaes Best Result

	Temperatures ©		System Power Consumption (W)	
	Idle	Load	Idle	Load
Nvidia GeForce RTX 2080 Ti	35	73	109	525
Nvidia GeForce RTX 2080	35	71	100	464
Nvidia GeForce GTX 1080 Ti	39	80	101	497
Nvidia GeForce GTX 1080	39	74	100	417
Nvidia GeForce GTX 1070	37	73	98	399
AMD Radeon Vega 56	36	71	98	463

> We look forward to the implementations of hybrid ray tracing in the likes of Battlefield V and Metro Exodus...



We'd need several PHD's to understand what's really going on under the hood.

known as RT cores to Turing GPUs. Fully ray traced games are still a long way off but thanks to these new technologies which make use of the DXR extensions of DirectX 12, hybrid ray tracing is a reality. Traditional rasterizing is here to stay for some time, however, developers can apply real-time ray traced environmental effects like reflections and refractions of light onto and around objects. This has traditionally been very difficult to achieve. Think of the way real world flames produce shadows that bounce around off of objects, casting variable light around a room. These are the kinds of ultra-realistic effects we can expect to see as more games include support.

Seeing these effects in action is spectacular. One of several upcoming games with ray tracing support is Shadow of the Tomb Raider which really does raise the bar for visual fidelity. Nvidia also showed off a ray traced demo of Captain Phasma from Star Wars. Her mirror like armour is rendered in such a way as to be virtually indistinguishable from the movie itself. And it's all rendered in real time. We look forward to the implementations of hybrid ray tracing in the likes of Battlefield V and Metro Exodus to see just how these effect look under real gameplay conditions.

DEEP LEARNING AND AI

For some time, our readers would have been aware of just how serious Nvidia is about deep learning and AI. The company has incorporated some of this

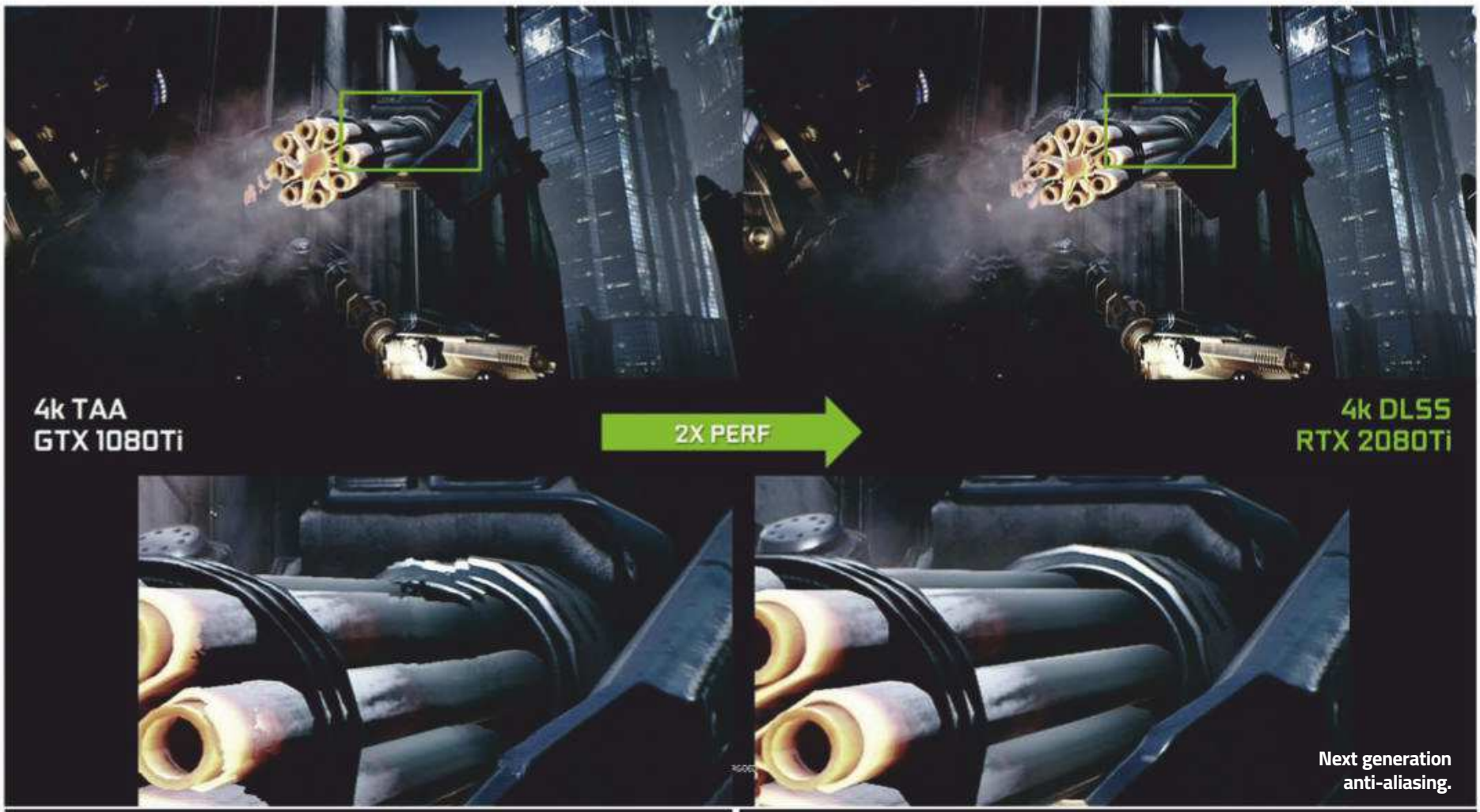
NVIDIA 2080 BENCHMARKS

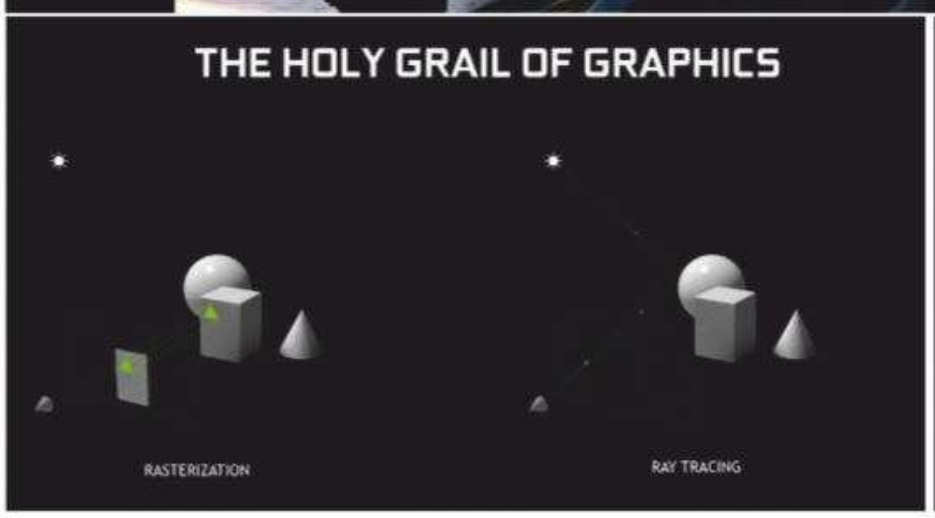
Indictaes Best Result

	Ghost Recon Wildlands (Very High Preset DX11)						Total War: Warhammer II (High Preset DX11)		
	1920x1080		2560x1440		3840x2160		1920x1080	2560x1440	3840x2160
	Min	Avg	Min	Avg	Min	Avg	Avg	Avg	Avg
Nvidia GeForce RTX 2080 Ti	105.68	133.20	83.00	106.38	53.31	66.15	176.10	130.90	71.10
Nvidia GeForce RTX 2080	102.28	119.23	77.69	91.47	28.66	54.52	152.00	104.80	55.50
Nvidia GeForce GTX 1080 Ti	101.29	113.07	76.77	88.23	44.64	54.73	145.90	99.70	52.90
Nvidia GeForce GTX 1080	82.18	95.77	59.52	72.36	32.51	41.92	115.30	77.50	33.90
Nvidia GeForce GTX 1070	67.80	77.63	48.37	58.62	26.24	33.93	85.30	57.10	30.10
AMD Radeon Vega 56	58.76	71.90	39.64	52.94	24.25	32.85	85.10	55.80	28.00

	Shadow of War (Very High Preset DX11)			Rise of The Tomb Raider (Very High Preset DX12)			3DMark	
	1920x1080	2560x1440	3840x2160	1920x1080	2560x1440	3840x2160	Firestrike	Firestrike Extreme
	Avg	Avg	Avg	Avg	Avg	Avg		
Nvidia GeForce RTX 2080 Ti	155	118	71	196,32	146.51	80.54	26281	15647
Nvidia GeForce RTX 2080	132	94	57	172.79	119.55	63.70	23560	12759
Nvidia GeForce GTX 1080 Ti	125	88	51	177.53	122.15	65.33	23564	13097
Nvidia GeForce GTX 1080	98	67	39	130.02	94.32	48.81	19498	9916
Nvidia GeForce GTX 1070	78	54	31	109.72	72.46	37.74	16188	8208
AMD Radeon Vega 56	83	57	35	105.36	72.58	38.33	16677	8439

CPU: Intel i7-8700K @ 4.8GHz all cores ▪ **Motherboard:** ASRock Z370 Taichi ▪ **RAM:** 2x8GB Crucial Ballistix DDR4-3200 ▪ **Power Supply:** Antec HCP-1200W ▪ **Storage:** 1Tb Samsung 970 EVO M.2 SSD **Cooling:** Corsair H100i Pro ▪ **Operating system:** Windows 10 Pro 64-bit





know how into the RTX series, notably with DLSS, or Deep Learning Super Sampling. DLSS is a super-sampling AA algorithm that utilizes the built in tensor cores. DLSS essentially examines the content of a rendered scene and intelligently combines details from multiple frames in order to produce the final image. The end result is a higher quality AA that that's frees up the burden that traditional AA algorithms place on the rendering pipeline.

The Tensor cores have some exciting possible use cases. They possess tremendous amounts of computational power for AI and deep learning that could be leveraged for use with things like intelligent enemies. How about a boss that learns every time you fight it? There are all sorts of possible applications. Nvidia mentions things like cheat detection and voice recognition among lots of other potential use cases. We're excited to see just how developers can make use of this power without impacting the traditional rendering pipeline.

NEW FEATURES AND STANDARDS

The 2080 and 2080 Ti are the first consumer graphics cards to make use of GDDR6 memory. This brand new generation memory delivers 14 Gbps signalling rates and 20% better power efficiency meaning it's both faster and uses less power than the GDDR5X memory used in Pascal GPUs.

In addition to the latest Display Port 1.4a and HDMI 2.0b standards, Turing adds support for VirtualLink. VirtualLink uses the USB Type-C connector to deliver the power, display, and data to VR-Headsets over single cable. No more cable spaghetti when enjoying increasingly prevalent VR content.

HDR is trending big in the PC gaming space. RTX series cards add HDR processing natively in the display pipeline. We tested the new HDR features with the gorgeous Asus ROG Swift PG27UQ. Gaming is simply amazing with a G-Sync HDR monitor like this. As if that's not enough of a monitor for you, Turing adds support for 8K 60Hz in HDR. Wow. Video capabilities are important for many users. Turing GPUs come with an enhanced NVENC encoder which adds support for H.265 (HEVC) 8K encoding at 30 fps. The latest HEVC 10/12b and VP9 10/12b are supported with HDR at up to 8K.

▲ One of the biggest architectural overhauls of all time.

▶ The future of graphics rendering.

SLI has been relegated to niche status at best, so it's somewhat of a surprise to see Nvidia resurrect SLI with the introduction of NVLink. On the GTX 2080 Ti, This interconnect is capable of up to 100 GB/s between cards, so if you're looking to go to 120Hz+ at 4K, NVLink will enable significant multi-GPU improvements.

The world of PC graphics is changing. While the RTX series' main focus is still to crank out high frame rates so gamers can enjoy a favourite pastime, the technology under the hood is quite incredible. The holy grail of graphics rendering: Real time ray traced ultra-realistic gaming just got a big step closer. Read on as we take a closer look at the RTX 2080 and 2080 TI Founders Edition cards. After all, all the tech in the world doesn't matter if they aren't fast!

GRAPHICS CARD

Nvidia GeForce RTX 2080 Founders Edition

GTX 1080 Ti killer?

PRICE $1,199
www.nvidia.com.au

Now that we've gone over some of the key highlights of the RTX series, it's time to take a look at the cards themselves, starting with the RTX 2080.

The GeForce RTX 2080 is based around the Turing TU104 GPU. It packs in 2944 CUDA Cores, 46 RT Cores, and 368 Tensor Cores. The Founders Edition comes with a 1800MHz boost clock, which Nvidia claims is a 90MHz overclock over the base GPU specification. In reality we'd expect these clocks to be the real world base specification.

There's also 8GB of 14Gbps GDDR6 memory, which combined with its 256-bit bus width, means it has 448 GB/s of available memory bandwidth. This is big jump from the 320 GB/s of the 1080.

The PCB itself sees a significant improvement. Previous Founders Edition cards have tended to have a reputation for a bare bones design and so we're pleased to see the RTX 2080 has a beefed up 8+2-phase DrMOS VRM system. There's a new dynamic power management system which helps with power delivery stability and efficiency, both of which are desirable traits for overclocking.

The RTX 2080 features forward looking display connectivity with three DisplayPort 1.4a outputs that are capable of driving displays up to 8K resolution at 60 Hz from a single cable. There's a HDMI 2.0b connector with HDCP 2.2 support and the previously mentioned VirtualLink USB Type-C connector designed for VR headsets.

Nvidia completely overhauled the design of the cooler, and it's a work of art. The entire card, including the rear is covered with a premium machined aluminium shroud. It really does look and feel like a high end graphics card should. While board partners are releasing their own versions with bigger coolers, the differences in thermals and acoustics should be somewhat smaller than we've seen with previous FE and custom cards.

The TDP of the RTX 2080 is rated at 225W, a notable increase compared to 180W for the GTX 1080. Our power consumption tests reflected this with an increase of 47W from the wall when compared in our reference system. The card remains very quiet under load thanks to the much improved cooler.

Performance is about where we'd expect it to be, better than the 1080 Ti, but not in every circumstance. It is able to game at 4K and is a great choice for high refresh rate 1440p monitors. We'd expect future drivers to add a little more performance to extend the overall lead of the 2080.

The RTX 2080 packs a truly next generation set of features. If you've got the dollars (and you'll need a lot of them) then the RTX 2080 will deliver excellent performance now, and into the future. While we love the RTX series, there's no doubt that the pricing is a tough pill to swallow, so if you're already rocking a GTX 1080 Ti, then the 2080 isn't a major upgrade, at least until ray tracing support becomes widespread. For those of us with a 1080 or less, the RTX 2080 is a technological and real world performance leap forward. *CHRIS SZEWCZYK*

> "Performance is about where we'd expect it to be, better than the 1080 Ti..."

+
- Real time ray tracing
- Amazing all round feature set

-
- Very expensive
- Not quite worth it if you have a 1080 Ti

VERDICT:

An incredible hardware triumph in every way, but the price makes it a tough upgrade for anyone with a high-end PC.

9

GRAPHICS CARD

Nvidia GeForce RTX 2080 Ti Founders Edition

4K gaming gets real

PRICE $1899
www.nvidia.com.au

Now we come to the monster in the room. The GeForce RTX 2080 Ti. It's the gaming card we all want to own, but the question is, at $1,899, can mortals afford it?

The GeForce RTX 2080 Ti is built around the TU102 GPU, this is the 'big Turing' chip and its release is something of a surprise given Nvidia's recent strategy to delay the big chip until later in the market cycle. Spec wise, it's a big jump over the outgoing 1080 Ti, with 4352 Cuda Cores tied up with 68 RT Cores and 544 Tensor Cores. It's clocked slightly lower than the 2080 with a 1635MHz boost clock but more than makes up for it with sheer grunt.

There's 11GB of 14Gbps GDDR6 memory, which with its 352-bit bus, gives an amazing 616GB/s of memory bandwidth. There's no doubting that the RTX 2080 Ti is a seriously beefy card that's likely to remain very capable for years to come as the drivers mature and features such as ray tracing. HDR and DLSS see more widespread native adoption.

The FE 1080 Ti PCB was regarded as being adequate, but nothing more. The 2080 is a big step forward thanks to the inclusion of a good quality 13+3-phase DrMOS VRM which brings it into line with some decent custom card solutions. As expected, the RTX 2080 Ti features the same display connectivity as the 2080, with three DP 1.4 ports, HDMI 2.0b and the VirtualLink USB-C port. It carries all the outstanding video capabilities we mentioned in the intro. Essentially it's got the best of everything that's possible in 2018.

The cooler is the same as the one found paired with the 2080, and we're pleased to see that it's easily capable of handling the more demanding characteristics of the 2080 Ti. It remains quiet even under load and temperatures are kept well in check which allows the GPU to push the boost clocks higher, for longer.

The RTX 2080 Ti is a performance monster, no doubt about it. 60Hz+ 4K gaming is easily doable. If you're one of the fortunate folks to be gaming on a 1440p 100Hz+ monitor, you're in for a real treat with 100fps+ being an absolute walk in the park. The power consumption levels are a small step up from the 1080 Ti, and we did notice slightly high idle power consumption, though it was nothing to be alarmed about.

We love the RTX 2080 Ti. It's a technological marvel, not just because

> "It remains quiet even under load and temperatures are kept well in check..."

of its gaming prowess, but the forward looking features it brings to the table. If the 2080 Ti is a monster, then so is its price. $1,899 is a big step up. That's money that buys you a decent gaming PC, but hey look at what Apple did with the recent iPhone launch. It's a pay to play market. If you want the best gaming graphics card on the market, here it is. You'll no doubt get to enjoy several years of top notch high fidelity gaming. *CHRIS SZEWCZYK* PC

+ • The most powerful card on the planet

– • HOW MUCH?!?

VERDICT:

If you have the money, this card future-proofs you for years to come, and gives you some insane bragging rights.

9

UPGRADE

GROUP TEST

By Ed Chester

DICTIONARY
WHAT ABOUT FRAMERATE CAPS?

Limiting the appeal of these displays is that some games are capped at framerates lower than 240Hz. For instance, Titanfall 2 is limited to 144fps, while Star Wars Battlefront 2 is limited to 200fps.

DO THESE MONITORS INCLUDE FREESYNC OR G-SYNC?

AMD and Nvidia's adaptive sync technologies work at up to 240Hz, and indeed all the monitors here feature one of these.

DICTIONARY
TN

The displays use TN-type panels. These have the worst viewing angles and color accuracy, but the fastest response of 1ms.

RESPONSE TIME

The time it takes for a pixel to transition from one color to another.

BACKLIGHT STROBING

A mode that flashes the backlight on and off. This tricks the brain into seeing a clearer image when there's fast movement happening on screen.

01

240HZ GAMING MONITORS

The best high-Hertz displays.

For years 144Hz monitors have ruled the roost, but recently we've seen a new generation of 240Hz monitors hit the market.

Are they the next must-have for competitive gamers? I gathered up five of the most popular options to find out.

01

Acer Predator XB252Q

PRICE $500
www.acer.com

As the most expensive monitor in this test, big things are expected of the XB252Q, and in many ways it delivers. It's up there with the rest of the displays here. It doesn't outperform them, but neither does it fall behind.

It also includes Nvidia's G-Sync and ULMB technologies, which are what push the price up. Turning on the former at 240Hz makes for a wonderfully smooth gaming experience, meanwhile ULMB helps reduce motion blur, though this only works at up to 144Hz and with G-Sync turned off.

Other plus points include a particularly narrow bezel round the top and sides of the display. This immediately gives the display a sleek, premium feel. The menu system is also intuitive, and the controls are easy to use. The stand offers a range of adjustments, and connectivity is decent, too. You're limited to one DisplayPort and one HDMI as with all G-Sync displays, but there are four USB 3.0 ports, with two located on the side, and the power supply is internal so there's no power brick.

However, when it comes to image quality, this display falters. It registered the lowest contrast of the displays on test, and its gamma score isn't great, either. For the priciest option, it's a disappointing result.

VERDICT:
A few very good features cannot make up for a low contrast, poor gamma, and a high price.

8

02

AOC AGon AG251FZ

PRICE $330
www.aoc.com

Thanks to its lack of G-Sync, this display has an impressively low price. You're still paying a premium over 144Hz displays, but here you're getting more for your money to go with that faster refresh rate.

For a start, you get a more premium design and build than an entry-level gaming display. The sturdy stand and base are metal, and offer a range of adjustments, while the display itself has a real solidness to it. The carry handle is also a nice touch.

There are several extras, too. On the side of the display there are a couple of USB 3.0 ports, headphone and microphone jacks, and a flip-down headphone stand. Round the back, you also get two more USB 3.0 ports, two HDMI ports, and a DisplayPort. You even get a pair of speakers.

All this and the display delivers when it comes to performance, too. Combine this display with an AMD graphics card to enable Freesync, and you have a smooth and responsive gaming experience. Image quality is also very good. Contrast is a touch low, but otherwise it is right up there with the rest of the displays in this test.

The combination of value, extra features, and a premium build makes this a compelling option.

VERDICT:
Are you really going to carry this around that much? Otherwise, a great combination of price and features.

10

03

Asus ROG Swift PG258Q

PRICE $520
www.asus.com

The presence of G-Sync on this display makes it among the more expensive in this test, and this inherently impacts its sense of value—a 1080p display costing over $500 is always going to be a tough ask.

However, the PG258Q does do its best to make up for that high price in other ways. It's the best-looking model in this group test, thanks to a slim and low-profile bezel around the edges of the display, a fetching metallic finish and a dainty metal stand.

The latter's legs give the display a lightness of look, plus they allow for the monitor's party trick. A light shines from the center of the stand, allowing you to project your own logo onto the surface below.

Elsewhere, Asus' menu control system is excellent, as are the menus themselves. You also get the addition of Nvidia ULMB, so you can choose between 240Hz or 144Hz with backlight strobing for reduced motion blur. Image quality is also decent, though notably this display isn't significantly better than any cheaper rivals. Also, connectivity is limited to just one DisplayPort and HDMI.

This isn't a big bargain, but it's a solid option if G-Sync and a neat design are important to you. Also consider the Freesync-equipped Asus XG258Q.

VERDICT:
Great looks and G-Sync compatability make this a solid choice for Nvidia fans.

8

04

BenQ XL2546

PRICE $550
www.benq.com

These monitors are all powerhouses, but the XL2546 pushes things further. As well as its 240Hz refresh rate, this is the only display to offer a motion blur-reducing backlight strobing mode that also runs at 240Hz.

The result is the pinnacle of gaming performance. You simply can't get a more responsive, clearer-looking image than with this display. The returns in terms of real-world results are diminishing, but if you simply have to have the best, this is it.

What's more, you get a few other extras, too. There are side wings that help block out any other distractions, and there's a wired remote that lets you switch monitor modes at the touch of a button.

A fully articulated stand, ample selection of connectivity—including side USB and headphone ports—and even a pop-out headphone stand further sweeten the deal.

Unfortunately, there are two key downsides. One is the high price—especially considering this display doesn't have G-Sync—and the other is image quality. Out of the box, it's downright awful, with inaccurate colors and very low contrast. Switch to the standard picture mode and it does improve, but still isn't as good as some of the other displays here.

VERDICT:
A great monitor, though we would expect G-Sync at this pricepoint.

9

05

Viewsonic XG2530

PRICE $365
www.viewsonic.com

As the joint cheapest display in this group test, the Viewsonic XG2530 could be forgiven for scrimping here and there. However, this monitor delivers on almost every front.

Most importantly, its display provides the performance and image quality you'd hope for. It ticks along at 240Hz, making for a lightning-fast, responsive feel, and giving up next to nothing compared to its peers, G-Sync aside.

As for image quality, it again impresses in every regard. It provides the best contrast level on test. Color balance is excellent right out of the box, and gamma response is very good. Just generally, it's about as good as these 240Hz displays get.

As well as this core performance, you also get an adjustable stand and plenty of connectivity, with one DisplayPort, two HDMI, and two USB 3.0. You also get basic speakers and a headphone output.

The display is less impressive with regards to its style. Its look is uninspired, with a generic exterior adorned by splashes of color. Also, its menus are a little confusing, and the buttons for navigation aren't the easiest to locate.

That aside, though,this is an excellent choice for the price.

VERDICT:
If you're not hung up on missing G-Sync, this is a great choice for the gamers on a budget.

9

STACKED UP

PRICE ($)
COLOR TEMP (DEVIATION FROM 6500K) *Lower is better*
CONTRAST *Higher is better*
SRGB COVERAGE *Higher is better*
GAMMA (DEVIATION FROM 2.2) *Lower is better*

1

Acer Predator XB252Q
500
163
732
93.1
0.14

2

AOC AG251FZ
330
204
900
93.6
0.038

3

Asus ROG Swift PG258Q
520
56
977
92.2
0.21

4

BenQ Zowie XL2546
550
1,527
871
90.9
0.17

5

Viewsonic XG2530
365
77
1007
93.6
0.11

ESSENTIALS

	SCREEN SIZE	PANEL TECH	RESOLUTION	RESPONSE TIME	FREESYNC/G-SYNC	BACKLIGHT STROBING	SPEAKERS
1	24.5 inch	TN	1920 x 1080	1ms	G-Sync	144Hz	Yes
2	24.5 inch	TN	1920 x 1080	1ms	Freesync	No	Yes
3	24.5 inch	TN	1920 x 1080	1ms	G-Sync	144Hz	No
4	24.5 inch	TN	1920 x 1080	1ms	Freesync	240Hz	No
5	24.5 inch	TN	1920 x 1080	1ms	Freesync	No	Yes

THE MIGHTIEST CPU

AMD'S RYZEN 2nd Gen THREADRIPPER BRINGS UNPRECEDENTED POWER TO THE CONSUMER and professional DESKTOP.

The release of AMD's Ryzen Threadripper platform in 2017 well and truly changed the high end desktop CPU market. Just a few years ago, 6 and 8 core CPUs were considered flagship offerings. Threadripper changed all that. Last year's stunningly powerful 1950X redefined what the high end desktop was capable of. A full 16 cores meant content creators, multi-taskers, power users and professionals alike had access to options that destroyed anything outside of the ultra-expensive enterprise realm.

Threadripper 2nd Gen brings options including the 2990WX with its unprecedented 32 cores. That's not all though. There's also the powerful and high frequency 16 core 2950X which will be joined later on by the 12 core 2920X and the 24 core 2970WX.

THREADRIPPER EVOLVED

The Ryzen Threadripper 2nd Gen processors bring all the advancements introduced with second generation Ryzen earlier in 2018. The improved 12nm process means better power efficiency, which along with improved memory support, lower cache latency and higher clock rates means better performance in all types of workloads. AMD also select only the best dies for use with Threadripper 2nd Gen CPUs. This means lower voltage for a given clock rate, leading to better XFR and Precision Boost 2.0 along with generally better overclocking capabilities.

Threadripper 2nd Gen carries over all the benefits and features seen with first generation Threadripper and accompanying X399 motherboards. A simple BIOS update is all that's needed, negating the need for an additional motherboard purchase. Threadripper 2nd Gen CPU's support an incredible 64 PCIe 3.0 lanes meaning there's enough bandwidth on hand to handle complex SSD arrays, networking and multi GPU configurations. With AMD Threadripper, you don't need to compromise or worry about running out of PCIe lanes. Unlike with competing platforms, the maximum number of PCIe lanes are available with all Threadripper 2nd Gen CPUs. You won't need to consult the motherboard manual to see what happens if you run a card in this slot or a drive in that slot. Threadripper 2nd Gen provides expansion options without compromise.

THREADRIPPER 2 BRINGS ENHANCED UNIQUE FEATURES

Ryzen Threadripper 2nd Gen processors support StoreMI, which is AMD's unique caching storage solution that combines DRAM, SSD and HDD storage into a single unified volume. StoreMI uses a dynamic algorithm that assigns the most frequently accessed files to the fastest available storage medium. It supports 2GB of system RAM and NVMe SSDs so even data found on a slow hard drive can receive impressive load time improvements.

Threadripper 2nd Gen users get access to an amazing set of configuration and monitoring options thanks to the improved Ryzen Master utility. A noteworthy addition is Precision Boost Overdrive. This allows the user to override AMD's default specifications. In addition to monitoring a set of CPU parameters, it can also access motherboard specific data relating to the VRM. A user running a 2950X will then be able to hold boost clocks for longer if conditions allow, this is something particularly useful for extracting maximum gaming performance for example.

You might think that you'll need an exotic cooling setup to cool such powerful processors, but this is not the case. Thanks to the use of indium solder between the dies and the heat spreader, Threadripper 2nd Gen CPUs offer superior heat dissipation properties, significantly better than competing platforms. An air cooler or affordable all-in-one liquid cooler is capable of dissipating the heat produced by an overclocked 2950X processor.

PERFORMANCE IN EVERY SCENARIO

AMD recognizes that not everyone has a need for the unprecedented multi-threaded power of the W series processors, and these users will find the more affordable X series processors a perfect choice. The 2950X can boost all the way up to 4.4GHz, beyond even the 4.3 GHz of the Ryzen 7 2700X. This makes the 2950X a great blend of enterprise class multi-threaded performance and single threaded performance. So, while rendering and encoding applications will be breezed through, there is still the performance on hand to power through lightly threaded applications, including games. The 2950X truly does offer the best of both worlds. You get massive multi-threaded and single threaded power for all workloads.

Linux users will be interested to note that Threadripper 2nd Gen's multi-threaded performance is excellent. The long history of Linux as an enterprise platform means that its scalability is well established and benchmarks with recent kernel releases show that Threadripper 2nd Gen's very high core counts are well supported. As Threadripper is based on Zen+ and the X399 chipset is mature, Linux users should find that Threadripper 2nd Gen works very well with almost all recent Linux distributions. Recent compiler releases also carry Zen specific optimizations, helping professionals get the best out of their Threadripper 2nd Gen processors.

Gamers haven't been left behind at all. Even if some game engines cannot deal with very high core counts, negating this is easy. All it takes is a simple mouse click to disable ½ or ¾ of the cores by enabling legacy compatibility mode in the Ryzen Master software. This makes it easy to enjoy top notch gaming performance. The Threadripper 2950X, with its improved XFR and Precision Boost 2.0 capabilities means games will benefit from the improved single threaded performance, and deliver the frame rates that are necessary for today's high refresh rate monitors and demanding first person shooters.

The 2950X is a perfect choice for a streaming gamer. 16 cores means it's easily possible to game and stream at the same time, even at 4K. How does butter smooth 4K gaming with a simultaneous 25Mbps stream and zero dropped frames sound? That's the kind of gaming performance and multitasking capability the Threadripper 2950X offers.

> "Threadripper 2nd Gen delivers the performance you need, whatever you want to throw at it"

A TRULY ADVANCED MICRO DEVICE

Ryzen Threadripper 2nd Gen once again redefines what the desktop PC is capable of. The 2990WX is in another league when it comes to multithreaded performance, while the 2950X offers a terrific blend of multi-threaded grunt combined with excellent lightly threaded performance that is still important to many users. AMD's Threadripper 2nd Gen delivers the performance you need, in whatever task you want to throw at it.

MONITOR

Philips 328M6FJRMB gaming monitor

A huge screen with a relatively small price.

PRICE $649
www.philips.com

Just $650 buys you 32 inches of gaming monitor today. It's a VA panel -- but a very good one. You get a 1900R curve which is fairly shallow but definitely enough to appreciate. And, it refreshes at up to 144Hz. Very nice! Its QHD (2560x1440) resolution is the sweet spot for looking sharp enough in gaming, and is practical enough to hopefully hit those 144Hz highs if you have enough GPU power available. At this price you get FreeSync, not G-Sync.

The Philips also throws in quantum dots, so primary colours really pop. There's also an HDR mode but in practise we thought it looked better with it off.

There's also an unusual input lag compensation mode. It works best when the panel's overdrive is also set to its fastest mode, bringing the response rate down, close to its claimed minimum of 4ms.

The best results in gaming were to be found with the monitor running at 144Hz. Action on screen was extremely fluid and smooth and no artifacting was apparent. This is all excellent for what we'd definitely consider to be a budget model.

Around the back is a single d-pad button that accesses all the controls. It's in a slightly awkward position, forcing you to really lean forward and reach around.

It's not a particularly bright panel. For general non-gaming use we judged it to be enough, but only barely. Whites on documents or in a browser look just a bit muted, and contrast against blacks suffer slightly as a result. In its favour the screen presents a very even spread with no inconsistencies in any areas, including the corners.

With it set to sRGB mode-on the brightness defaults to maximum, and trying to reduce it switches from sRGB to a new custom setting. It would be nice to have brightness adjustable while still in sRGB mode, this isn't by any stretch a professional monitor, but the sRGB mode is impressively accurate and well calibrated out of the box, and to our eye the sRGB mode simply looked the best (including compared to the built-in game presets), so some flexibility there would have been a bonus.

Ambilight is included, which is Philips' ambient lighting system that attempts to beam a general replication of what the screen is showing at any given time via built in LEDs. These shine downwards onto your desk. While in-game the effect is more candy than immersive, we ended up disabling it purely because in regular desk use out of games it would shine document white or browser colours most of the time, which was distracting.

> **"At a very reasonable price this is a fine gaming as well as general purpose monitor."**

At a very reasonable price this is a fine gaming as well as general purpose monitor. Colour accuracy is very good, it has an unusually solid stand -- though it can't be rotated horizontally. All up it's one of the best 32in screens we've seen and unless you need G-Sync is a red hot buy.

BEN MANSILL PC

PC PowerPlay POWER AWARD

+
- A lot of quality screen for the price
- Well built, fully featured

-
- No horizontal stand rotation
- Panel isn't very bright

VERDICT: **Excellent value and a whole lot of gaming in your face.**

8

Corsair K70 RGB MK.2

An excellent upgrade to an enduring classic.

PRICE $229 • **SUPPLIER** CORSAIR
www.corsair.com

Built around a solid piece of attractive, black aluminium, the Corsair K70 RGB MK.2 is a board that can take some abuse. The keys feature the now sadly usual RGB lighting, though this is easily controlled from the board itself, and can be tweaked handily via Corsair's excellent iCUE software – which can also be used for macro-recording. The Corsair K70 RGB MK.2 also boasts 8MB of onboard storage. In game or while typing the keys are responsive, and come in a full range of Cherry varieties.

Alternate key caps are included for popular gaming keys (like the WASD keys, etc); they're much the same design that Corsair's been using for years now, and offer that little bit extra tactile feedback in-game, without interfering with typing.

What might be a sticking point, however, is the price. At $229 it is a non-trivial investment, but it is one that will last.

DAVID HOLLINGWORTH

VERDICT:
Am aluminium base not only looks good, but adds STRONGTH

8

Tt Esports Neptune Elite RGB

Elegantly understated, but fully-featured.

PRICE $99 • **SUPPLIER** THERMALTAKE
www.ttesports.com

There is so much to like about this effort from Thermaltake's esports gaming brand, but the one that puts all of them into perspective is its price - for a mechanical gaming keyboard, $100 is a steal. And for that, you get loads of premium features.

RGB lighting, of course, with a range of presets, include built in gaming ones that highlight important keys for different gaming genres; does having lit WASD keys make you a better shot in PUBG? Probably not, but it's still cool. Even cooler are multimedia keys, a very tactile metal volume wheel, and a USB passthrough.

Sure, you're not getting Cherry switches, but rather TTC ones, in either Blue or Brown varieties. They don't feel as precise as Cherries, but in-game there's nothing holding you back.

The only drawback is the all plastic, austere design of the board. It's not as sturdy as some, but for the price? It's hard to beat.

DAVID HOLLINGWORTH

VERDICT:
An excellent budget choice, but low on looks

8

Razer Blackwidow Elite

Neck and neck with Corsair for cost - but is worth it?

PRICE $299 • **SUPPLIER** RAZER
www. razer.com

Razer pretty much kicked off the mechanical keyboard arms race with the original Blackwidow, but since then it's drifted away from the gold-standard Cherry switches of its main competitor, Corsair, in favour of its own Razer switches. This keyboard has Razer Greens, and they are delightfully tactile and clicky - great to game and type on, but possibly not winning you any awards in share houses or open plan offices.

This a premium board, with a matching price, but it really is a league apart in looks. Its RGB lighting seems toned down from other brands' efforts, and the media controls are particularly attractive, and very functional. It's a very heavy and sturdy board too, almost impossible to move while in-game, and the magnetically attached wrist-rest is comfortably padded. It even comes with audio connectivity.

I used to have a poor opinion of Razer switches, but the Elite changes my mind.

DAVID HOLLINGWORTH

VERDICT:
Close to the best board on the market

10

Fnatic Streak

Our first look at the brand is a pretty positive one…

PRICE $US129.99 • **SUPPLIER** FNATIC
www.fnatic.com

At time of writing, it's our understanding that Fnatic's range of gaming peripherals are about to launch into the Australian market. The Streak we received for review boasts Cherry MX Red switches - not our favourite by a long stretch - but also comes in Blue and Brown varieties. Being Cherry switches, you know what you're getting, so it's the Streak's other features that set it apart… Though by and large it's your standard selection - RGB lighting, multimedia keys, volume wheel, and a USB passthrough all grace the Streak's rounded, slimline chassis.

What's unique on the Streak, however, is a button that handily kills all the distracting lighting, and a very versatile wristrest. The bottom plate attaches solidly to the keyboard, but the padded rest itself can be set in three magnetically secured positions - and it's really comfy, too, both to type on and in-game. Definitely a brand to keep an eye on.

DAVID HOLLINGWORTH

VERDICT:
Some unique features and design on a tops board

8

I CAN SEE CLEARLY NOW: THE QUEST FOR RESOLUTION

What's the real difference between PC gaming and every other platform? Is it control systems, graphical power, genres of play, price? No: for each of those there is an equivalent. The real difference is variable screen resolution. PC gamers have suffered, so everyone else can benefit. Here's how.

By this point, it's pretty difficult to argue that the entire gaming industry hasn't been driven by advances in open-platform PC technology. Everything from the USB plug-holes in your PlayStation 4 to the Bluetooth and low-powered GPU that makes the Nintendo Switch even workable at all, all come from PC.

The Switch is an especially good example, because unlike the big box consoles, it has to be able to run every single game in at least two resolutions, specifically 1280x720 (in handheld mode) and 1920x1080 (in docked-mode).

Dynamically switching between resolutions, while a game is running, is no trivial thing. Fortunately, Nintendo had approximately 30 years of PC experience to draw on.

CEEGEE VEEGEES

It really is hard to overstate the difference between the development of the Apple II and the IBM PC. Here was Apple, being all precious and independent, depending entirely on the equivalent of electronic wizardry on the part of Steve Wozniak and the interpersonal relationship equivalent of being hit with a cricket bat with nails in it on the part of Steve Jobs. Meanwhile, IBM was spending roughly a brazilian dollars on cramming an entire mainframe into a box barely six or seven times the size of a modern PC.

Key to this was the IBM PC's graphics output. The Apple II Plus (the current model when the first IBM PC came out in 1981) could do either 16-colour graphics at 40x48 (not a typo) or six-colour graphics at 280x192. They called that hi-res mode.

IBM's new Color Graphics Array (sic) adaptor destroyed this with a massive boost to 300x200. Yeah take that Apple!

See, back in the 1980s, personal computers had various graphics modes. Mostly, they split between text-only, standard detail graphics, and high detail graphics.

IBM's CGA adaptor ran a whole bunch of confusingly different modes and did astoundingly arcane stuff to the output signal to make it work on a TV. Interestingly, the original output standard was digital - but only worked on a specialised IBM monitor. An RGBI monitor [RUNTIME ERROR - OBVIOUS JOKE MISSING LINE 84]. Remember: all this stuff cost not thousands, but tens of thousands of dollars on release.

Anyway, as with so much PC tech, the creation of the CGA adaptor created economies of scale that dropped the prices on all kinds of components, which let engineers do more, which led to a next generation of kit - in this case, the Extended Graphics Adapter.

The EGA was mindblasting in 1984. I mean we're talking 640x350 with 16 colours, from a palette of 64 colours. That means it could only show 16 colours at once, but had 64 to choose from. That's so many colours! That's a two-layer pencil box of colours!

This was also the point where third parties started to mess around with the open nature of the "IBM compatible" PC. It was also where we first saw the 4:3 aspect ratio in 640x480.

But it was in 1987 when things got really serious. You might think of "VGA" as those old blue plugholes on school computers, but it stands for Video Graphics Array (yep, so back to "VGA adapter", thanks IBM).

VGA cemented the 640x480 16-colour resolution as the standard, one that's still used today. But it could also do 320x200 with

NOTE FOR PEDANTS

In keeping with the essentially confusing nature of everything PC, you have to say "a CGA Adapter" because the A stands for Array, but you have to just say an EGA, because the a stands for Adapter. Which is how it would be from then on. Haha, just kidding. See later...

"IBM's new Color Graphics Array (sic) adaptor destroyed this with a massive boost to 300x200."

You may scoff, but the Switch has benefitted from decades of PC evolution.

This is your video card's great, great, great... grandparent.

Bioshock showed gamers exactly what they were missing out on ...

an astonishing 256 colours. Sounds low-res? Remember: everyone was using 14 or 15-inch CRT monitors. You could see the pixels but it still looked crisp. Like Minecraft running in 4K.

Because 1987 was when the clone market for PCs really started to take off, VGA became the standard, well, standard for PCs, and 640x480 became the first widely implemented standard for "good" PC graphics.

EVERYONE WILL BE SUPER, AND THEN EVERYONE WILL BE

The year 1987 was important for PC gaming in so many ways. Because it was the year when serious numbers of PC clones started to appear, it also marks the point where IBM threw up its hands and said "Good luck guys!" to the industry.

From 1987, the future of PC gaming would no longer be defined exclusively by IBM. Sure, Intel would shoulder much of the burden, but other consortia and standards organisations began to spring up. Particularly VESA - the Video Electronics Standards Association.

As we began to rush headlong into the nutso 90s, having a "VESA compatible" graphics chip made configuring games like Wing Commander and the various Kings Quests so much easier.

VESA championed a standard called, simply, Super VGA. Super VGA wasn't a specific kind of adapter, but came eventually to mean anything that built off the VGA standard.

For gamers, SVGA meant a resolution of 800x600, a colour depth of 256, and (at first) framerates solidly in the teens.

What you'll notice about 640x480 and 800x600 is that both these resolutions have an aspect ratio of 4:3. Nothing about SVGA was ever set in stone, but monitor manufacturers needed to be confident their products would work with any of the increasing number of PC brands, and those PC makers could no longer rely on customers buying a (usually expensive) brand-matched monitor.

PC didn't have Apple's luxury of controlling all the hardware, top to bottom, so Super VGA was a complicated standard that could, ultimately, support resolutions all the way up to 2560x2048. Which you would only ever see on a gigantic 21-inch CRT monitor mostly likely built by Sony and owned by your mate's dad who was into CAD in some way.

Of course the maths-wonks among you will realise that 2560x2048 is still 4:3. But the monitor you play your games on today isn't 4:3. So what's up with that?

ALL HAIL THE GREAT GOD TELEVISION

The short version is that TV manufacturers looked at all the work done by PC engineers, looked at new-fangled LCD TFT tech, and said thanks very much we'll take it from here. At least, standards-wise.

Actually it's a little fiddlier than that. There are tedious reasons why a cathode ray tube monitor is much much cheaper to build in a squarish shape than a rectangular shape, but this didn't apply, in the same way, to LCD.

Like almost everything, liquid crystal displays got their big break on PCs. I remember reviewing a 19-inch 1600x1200 LCD in 2000. I forget who built it (probably Philips, it was a weird time) but I'll never forget the RRP: $9,999. And ghosting? Man, that thing ghosted like Paranormal Activity XI: Amityville.

LCD manufacturing is all about making a giant thin film transistor sheet and cutting it up to give you the most panels as possible. At some point, someone figured out you could take a 19-inch 1280x1024 display and lop off the bottom to make it a 1280x720 17-inch widescreen display.

Don't market it as a cut-down 19-inch though. Market it as an extended, wide 17-inch display! You get more panels from the TFT sheet, and you can charge more because it's widescreen!

This worked brilliantly right up until the release of Bioshock, when PC gamers on widescreen monitors playing next to gamers on 4:3 monitors realised - to their horror - that the old-school 4:3 guy could see more of the environment! Bioshock wasn't extending the game to the left and right! It was lopping it from the top and bottom! Cue outrage!

Me, I say at least it was still running at 16:10. Consumer electronics had yet to deliver the final insult, the unkindest cut of all.

SO SIMPLE AN APPLE COULD DO IT!

Now, it might not be the done thing to quote Wikipedia in a proper magazine that gets printed on paper and everything, but this paragraph explaining how the Apple II could do colour is just too amazing not to celebrate:
The Apple II display provides two pixels per subcarrier cycle. When the colour burst reference signal is turned on and the computer attached to a colour display, it can display green by showing one alternating pattern of pixels, magenta with an opposite pattern of alternating pixels, and white by placing two pixels next to each other. Blue and orange are available by tweaking the offset of the pixels by half a pixel-width in relation to the colour-burst signal. The high-resolution display offers more colours by compressing more (and narrower) pixels into each subcarrier cycle.

But unkindly cut it eventually did. The first truly affordable mass-market widescreen "Full HD" gaming monitors, appearing around 2009, didn't run at 1920x1200. A 16:10 1920x1200 display was expensive. I'm not ashamed to say I spent $1200 on a Dell once. That screen lasted more than a decade, and I think I played my role in helping push prices down.

But I do feel bad that, even as editor of this mighty magazine (well, ex-editor at the time, it was about 2005), I was unable to stop the rot, to prevent the insult that is 16:9.

See, those first full HD monitors were 1920x1080. That's the same resolution as a [spits] television. We were robbed of 120 vertical lines of resolution by digital programming. By 7Mate.

That's right. After nearly 30 years we've come full circle. From using weird RF adaptors to make our TVs work as computer monitors, we now have computer monitors that are basically fancy (and tiny) TVs.

I guess 4K makes up for it. Just not very much, is all.

ANTHONY FORDHAM PC

HOTWARE 273
with Terrence Jarrad

01 PlayStation Classic
$149.99 ▪ Sony
www.playstation.com/en-au/

Nintendo were on to something with their NES and SNES minis, and Sony appears to have been paying attention, so come Dec 3rd, you'll be able to snap up the PlayStation Classic...

POWERED UP: Promising 20 of "the best" games from the original PlayStation, the list revealed so far shows TEKKEN 3 and Final Fantasy VII amongst others! It's about a quarter the size of its progenitor, comes with two controllers, and a USB cable.

PLAYED OUT: No included power source, and highly likely to sell out, if it hasn't already by the time you read this.

02 Nintendo Switch Wireless NES Controller
$90 ▪ Nintendo
www.*nintendo*.com

Not to be outdone in the retro console arena, Nintendo has also announced a couple of wireless NES controllers for the Switch, so you can play those classics the way Cernunnos intended: uncomfortably, with their impression gouged into your hands for days.

POWERED UP: Two controllers in the pack, wireless, rechargeable, and with L and R shoulder buttons!

PLAYED OUT: You have to be a Switch Online member to get these with only one purchase allowed per Nintendo Account, and you must be on a *paid* Switch Online membership, not a trial. Ouch.

03 Quarter Size PAC-MAN Arcade
$300 ▪ Geekstore
www.geekstore.com

Let's continue the trip down memory lane with this PAC-MAN arcade cabinet from Numskull!

POWERED UP: Officially licensed product, and true-to-life replica, at one quarter the size, measuring around 17x8x6 inches! Will be limited to only 10k units.

PLAYED OUT: One wonders how durable this will be at the reduced size. Are our huge ham-hands going to ruin it? Should we just keep it in the packaging and hope it funds our retirement one day? Are our wallets now mysteriously 300 dollars lighter? Who will answer these important questions?

04 Polymega Retro Console
$400 ▪ Polymega
polymega.com

MOAR NOSTALGIA!!!

POWERED UP: Plays CD games including PS1, Turbografx CD, Sega CD, Neo Geo CD, and Sega Saturn, while cartridge games are supported with add-on modules for Genesis, Turbografx 16, SNES and NES, that slot in – each of these has five games pre-loaded and comes with a controller. Games can be installed on the unit, and it's also completely region free, so you can play games from anywhere.

PLAYED OUT: Neat idea, but it's really only for those with existing retro game collections that they can't or don't want to play on their original consoles.

05 Love Hulten OriginX
$4800 ▪ Love Hulten
www.lovehulten.com

You may have noticed a retro gaming trend this Hotware, and so far this we've featured relatively affordable gear. So here's something you will never own, from our favourite premium designer console makers, Love Hulten!

POWERED UP: Hand crafted with love (and ...hulten?), this slim wall-mounted homage to the Pong cabinet features walnut housing, a yellow façade, and a control panel made from aluminium. Capable of storing over 10,000 emulated games, it has a USB interface through which you can load your favourites.

PLAYED OUT: Well look, it's the price, obviously. You'd need to have some very serious retro love to justify this spend, but wow, it is beautiful!

The home of technology

techradar.com

INVENTORY

THE BEST BUILD FOR EVERY BUDGET

CONTROLLERS

Sometimes you gotta go mouse + keyboardless

Xbox One Controller

$69 *microsoft.com/en-au/*

Plug and play meets comfort. Every PC needs a controller and this is the best

Steam Controller

$89.95 *store.steampowered.com*

There's a bit of a learning curve, but it's great for couch gaming

MODEM ROUTERS

For all rational budgets

BUDGET

Synology RT1900RT

$169 *synology.com*

Good performance and delightfully easy to set up and manage

Synology Router RT2600ac

$328 *synology.com*

Perfect for all but the biggest families, has unusually strong transmission strength

PREMIUM

Asus ROG Rapture GT-AC5300 Gaming Router

$695 *asus.com.au*

Super fast and future proof, this is a gaming router that takes no prisoners and offers no compromise.

LAPTOPS

Gaming on the go

BUDGET

Dell G3 15

$1,599 *www.dell.com*

8th-gen CPU and a reasonable GTX 1050 is a bargain basic gamer

PREMIUM

Asus ROG Strix G703 GL

$5,999 *asus.com.au*

The best of everything

MINI

For lounge room gaming and streaming

CPU + COOLING

Intel Core i5 7500 w/ stock cooler

$235

intel.com

MOBO

Asrock Z270M-ITX/AC Motherboard

$185

asrock.com.au

GPU

Asus DUAL-RX480-4G

$338

asus.com.au

MEMORY

16GB DDR4 Corsair Vengeance LPX

$249

corsair.com/en-au

STORAGE

Samsung SSD M.2 2280 NVMe 250G 960 EVO + 2TB HDD (any)

$169 + $50 *samsung.com/au*

CASE

Fractal Design Define S Nano

$115

fractal-design.com

PSU

SilverStone SFX Gold 500W SX500-LG

$110

Silverstone.com

SOUND

Your sound system

What you paid for it

DISPLAY

Your TV

What you paid for it

KEYBOARD

Roccat Sova

$199

www.roccat.org

MOUSE

Roccat Kone EMP

$99

www.roccat.org

TOTAL: **$1,749**

BUDGET

The perfect entry-level gaming PC

CPU + COOLING

AMD Ryzen 5 2600 + Wraith cooler

$235

amd.com

MOBO

Gigabyte B450 Aorus Pro Wifi

$229

gigabyte.com.au

GPU

MSI RX 580 Gaming 8GB

$399

msi.com

MEMORY

G.Skill Ripjaws 4 DDR4 2400MHz 16GB Kit 2x 8GB

$279 *gskill.com*

STORAGE

Sandisk SSD Plus 240GB

$85 *www.sandisk.com.au*

CASE

Corsair Carbide SPEC-02 Mid Tower Gaming Case

$80 *corsair.com/en-au*

PSU

SilverStone Strider Essential 500W ST50F-ESB **$55**

silverstone.com

SOUND

Cougar Phontum

$69

cougargaming.com

DISPLAY

AOC Q3279VWFD8 75Hz Freesync 32in IPS

$299

au.aoc.com

KEYBOARD

Tesoro Tizona G2N

$49

tesorotec.com

MOUSE

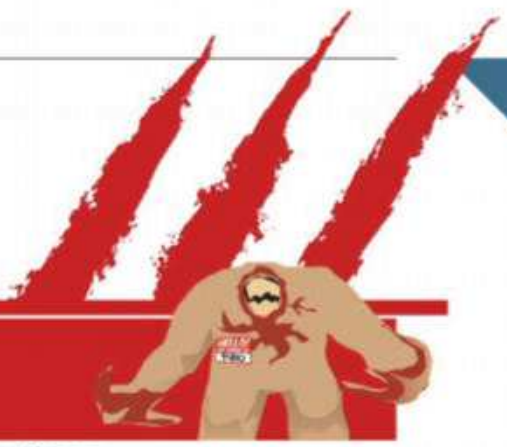
Cooler Master MM530

$59

coolermaster.com

TOTAL: **$1,829**

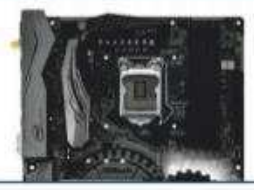
Not quite so many changes as last issue, but let's face it, the one addition to our inventory of essential PC builds is pretty damn remarkable - not to mention expensive. Nvidia's new RTX 2080 Ti has graced our test bench, and while it may be a little while from release, it is without a doubt the fastest card on the market, and so it's a gimme to plug one into The Beast. When the 20-series is more widely available, we expect a lot of price drops elsewhere, but for now, things are steady.



PERFORMANCE
Most bells and whistles, without breaking the bank

CPU + COOLING
Intel Core i7 8700K with Noctua NH-D15 CPU Cooler
$529 + $115 *intel.com*

MOBO
Asrock Z370 Taichi
$284
asrock.com.au



GPU
Galax GTX 1080 EXOC 8Gb
$689
www.galax.com

MEMORY
G.Skill RIPJAWS 4 32GB KIT 4X8GB
$599
gskill.com

STORAGE
2TB HDD (any) + SAMSUNG 500GB M.2 NVMe SSD 960 EVO
$319 + $50
samsung.com/au

CASE
Fractal Define R6
$209
fractal-design.com

PSU
Be Quiet! Dark Power Pro 11 850W Power Supply
$279
bequiet.com

SOUND
Sennheiser PC 373D
$329
en-au.sennheiser.com

DISPLAY
Asus ROG Strix XG32VQ
$859
www.asus.com/au

KEYBOARD
Cooler Master MK750
$189
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WAR SOMETIMES CHANGES A LITTLE

As Interplay was gearing up to launch a series of AD&D RPGs that would set a new standard for depth and complexity, one small team sat in a back room indulging its bloodlust and love of obscure RPG systems. The result was a pair of games that have since been imitated at fabulous expense, though perhaps not bettered.

FALLOUT AND FALLOUT 2

DEVELOPERS BLACK ISLE STUDIOS (BUT TOTALLY NOT THE A-TEAM)
PERSONALITIES TIM CAIN
RELEASED 1997 / 1998
NUTSHELL Exploding heads, atomic warfare, prostitution, heavy drug use, mutant cows, giant scorpions, difficult moral choices regarding developmentally-delayed farm boys... and that's all just in the first two hours.

Each new version of Fallout feels more and more like cultural appropriation. No wait, bear with me on this.

Back in the late 1990s, RPGs were a very particular kind of thing. Specifically, they were sword-and-sorcery fantasy, mostly sprite-fests on pre-rendered backgrounds. Back in 1997, Ultima was still king, though soon to have its crown wrestled away by the great Infinity Engine AD&D games like Baldur's Gate and Icewind Dale. Oh and there was some flibberty-gibbet soft-RPG action slasher called Diablo, but I don't think that ended up amounting to very much.

Those AD&D games though, I mention not entirely in passing, because the original Fallout was a response to and a rejection of the increasing D&D-ification of PC RPGs in the late 1990s. It dared to ask: what if role playing could be, you know, more like real life?

CLASS IS OVERRATED

Fallout lead Timothy Cain gave a famous and fascinating Fallout postmortem speech at GDC 2012, in which he tells the classic tale of a single developer working on his own engine in his spare time, resulting in a game so awesome its publisher was forced to commission a sequel even though the game was, in many ways, a bloody mess (see what I did there).

Part of what Cain and the small team that grew around him didn't like about RPGs at the time, was the - shall we say - somewhat obvious path to victory. The better games let you be good and/or bad, but it was always obvious how to be each. Kill the dragon that's terrorising the town: good. Help the dragon burn down the town: bad.

The entire point of Fallout was to offer the players decisions where there was no obvious solution. A town is split in two by warring factions, but both leaders are terrible people. Which side do you support? What makes you make the decision? Is it whoever offers you the best reward? Is it how the result will affect another NPC?

This complexity of choice, and a lack of specific classes, was initially based on Steve Jackson Games' Generic Universal RolePlaying System.

GURPS allows tabletop players to set their adventures in any possible genre or world. Even in impossible worlds. One of the key features is character Advantages and Disadvantages - these allowed players to assign points to different aspects of their character - Advantages cost points and give benefits, while Disadvantages limit the character but return points to be spent on other Advantages.

Also, GURPS included a huge - limited only by player imagination really - number of minor advantages (called Perks) and minor disadvantages (called Quirks) that added another layer to very detailed character customisation.

Fallout players will of course recognise Perks - they're a core part of the SPECIAL RPG system. Advantages in Fallout are called Traits, and combine benefits and limitations in the one ability.

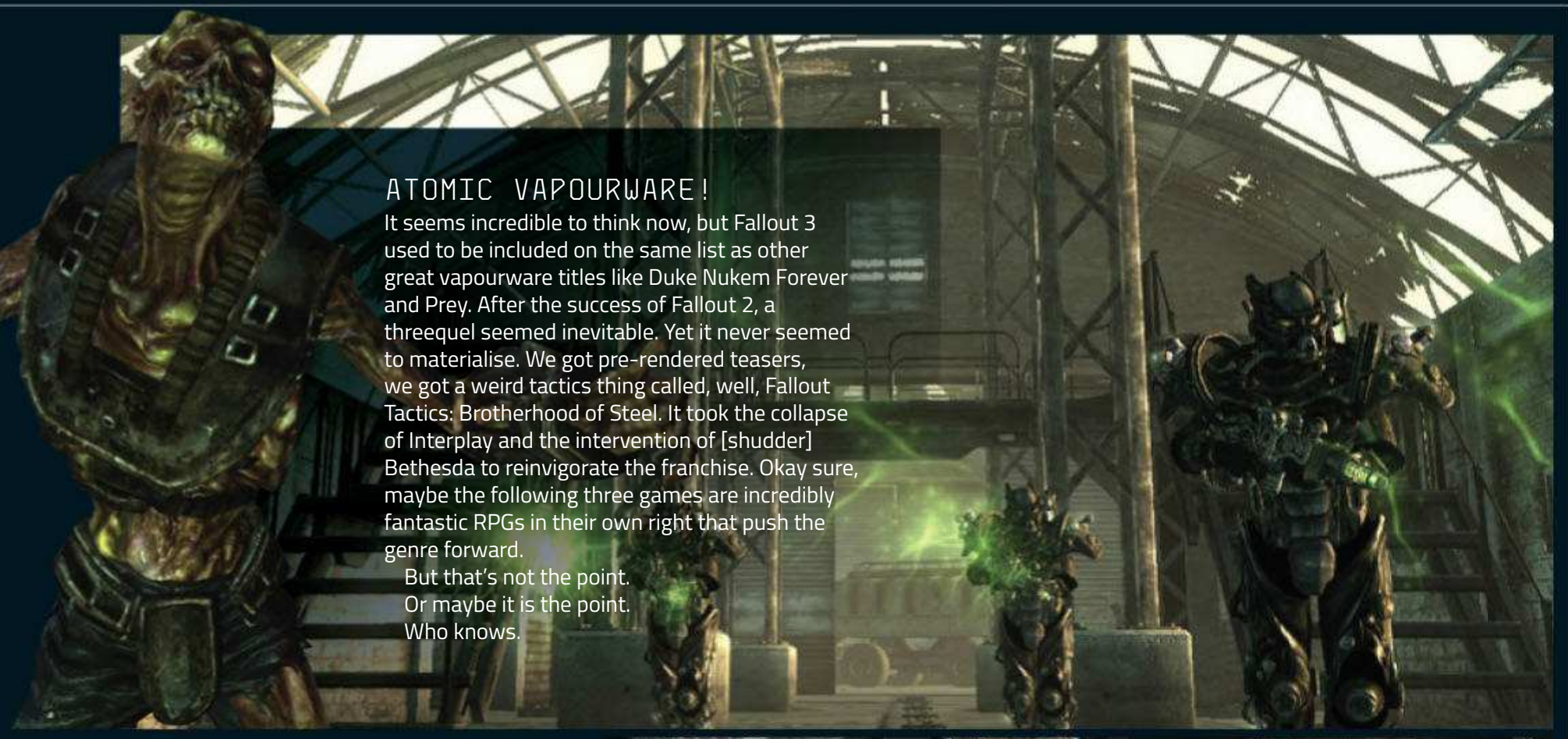
SQUEAMISH STEVE ISN'T SPECIAL

The reason these aren't called Advantages, and that GURPS doesn't get a mention in Fallout today (except in post mortems and Hagionaut trips) is that Interplay lost the GURPS license partway through Fallout's development. Why? In short because Steve Jackson - the guy at least partly responsible for how pen-and-paper roleplaying was turning kids into Satanists or whatever - felt the game was too violent.

The team had to come up with its own system. We know it today as SPECIAL - Strength, Perception, Endurance, Charisma, Intelligence, Agility and Luck. We can only imagine the rounds of high-fiving that must have occurred at Interplay when they figured out that acronym. But then, Americans love them some clever acronyms.

Anyway, the end result was an RPG that wasn't like anything else the gaming world had ever seen. A classless real time (with a countdown clock) RPG with turn-based combat that was fast and fluid, set in an atompunk retro-future with an original aesthetic, full of real choices and dilemmas, and of course a period-and-setting-appropriate dose of proper ultraviolence.

That's how did it in the olden days - none of this 3D, first person crap!



ATOMIC VAPOURWARE!

It seems incredible to think now, but Fallout 3 used to be included on the same list as other great vapourware titles like Duke Nukem Forever and Prey. After the success of Fallout 2, a threequel seemed inevitable. Yet it never seemed to materialise. We got pre-rendered teasers, we got a weird tactics thing called, well, Fallout Tactics: Brotherhood of Steel. It took the collapse of Interplay and the intervention of [shudder] Bethesda to reinvigorate the franchise. Okay sure, maybe the following three games are incredibly fantastic RPGs in their own right that push the genre forward.

But that's not the point.

Or maybe it is the point.

Who knows.

> A game that was so subversive, you could even subvert it's own subversion...

The guys who invented SPECIAL are probably still feeling pretty smug.

The foundations the modern frachise are built upon.

No wonder Interplay kept it relatively quiet until release. Fallout was everything the relatively safe and even (in comparison) twee megahits like the Ultimas (which Interplay was targeting) weren't. Interplay was gearing up to change the world with the super-deep and detailed Baldur's Gate, Icewind Dale, and of course the definitive Planescape: Torment.

Each of these was an excellent RPG in its own right, and yet compared to Fallout there was just something... mainstream about them. They were, as I say, safe. Even the Nameless One from Planescape: Torment is a hero compared to a Fallout character.

BLOODY SUCCESS, CHEESY CHEATING

When Fallout was an unexpected, though still somewhat underground, success, Tim Cain and his team were given permission and cash to follow up with the far more sprawling and detailed Fallout 2, in 1998. Lest the gaming world think Fallout was a fluke of the year 1 BBG (Before Baldur's Gate), Fallout 2 showed how wrong that was.

A personal favourite memory from Fallout 2 was the infamous "Navarro Run". Because the game is so open-ended and the world so sprawling, it's possible - before doing anything more than the opening tutorial quest - to run straight down the map, reloading if you hit a particularly tough random encounter you can't escape from - to a military base. There, simply walk into the nearest barracks and there's a locker containing a full suit of high-level Power Armour. Whack it on and then stroll home in a leisurely fashion.

Since the game didn't do any of that "scaling enemy encounters to your current level of toughness" shenanigans, it made the entire first half laughably easy.

And yet it's tantamount to the skill of the developers and designers that, even with early power armour, the game is still incredibly fun.

Of course there are purists who insist the Navarro Run is the worst kind of cheesing, because you're taking advantage of the game, or something.

But that's Fallout 2 to a tee. A game that was so subversive, you could even subvert it's own subversion in a sort of meta-subversion.

LIAM NEESON ARE YOU KIDDING ME?

What's subversive about New Vegas? What's edgy about Fallout 4? They're just FPS/RPG hybrids that try too hard. They're the same as a dozen other games, just with a reasonably unique aesthetic.

Playing the original games made you feel like you shouldn't be playing them. OMG, you thought, is this really in a videogame? Does it really say on the back of the box that you can get married and then pimp out your wife? Is there really a perk called "bloody mess"?

But these big-budget Fallouts of the 21st century are just too obviously the product of focus group testing and feedback. Fallout and Fallout 2 were warts-and-all, seams-showing, occasionally-pointlessly-easy products of old-school QA. Get in the room, play it, tell us if it breaks. Oh it broke? Nah, that's not worth fixing, keep playing.

When Tim Cain and his team built Fallout they had no idea what they were doing. But they had vision. That's the exact opposite of how Fallout 3 was built.

My PC gaming cultural heritage is not your multi-million dollar FPS Liam Neeson paycheque. Okay, it's still an awesome game. But never forget it owes so much to the original.

ANTHONY FORDHAM PC

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